PATIENT-CENTEREDNESS IN PHARMACIST PRACTICE:
Filling a foundation for what counts to patients

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Dedication

This dissertation is dedicated to my wife Tawny, my mother Deb, my father William, my sister Anna, and my daughter Audrey. You mean everything to me and this accomplishment is as much yours as it is mine.

Abstract

Background: There is general agreement among nearly all healthcare stakeholders that team-based, '*Patient-Centered Care'* (PCC) is essential to successful prevention and management of chronic disease as well as the promotion of health and well-being. However, there is ambiguity and divergent thinking about the explicit meaning of the '*Patient-Centeredness'* (PC) theoretical construct that informs PCC. Contemporary PC research has focused on identifying the commonalities of PC conceptualizations across healthcare populations (e.g., age, disease), settings (e.g., outpatient, inpatient), and professions (e.g., Medicine, Nursing) to reflect the interprofessional and team-based nature of contemporary healthcare practice. The Joint Commission of Pharmacy Practitioners' "Pharmacists' Patient Care Process" (PPCP) places PCC at the center of its model but provides little detail about the meaning of PC. A well-articulated conceptualization of PC is a necessary precursor for ensuring fidelity in the measurement, practice, and evaluation of team-based PCC provided by pharmacists with patients.

Objectives: This study aims to (1) uncover how PC is defined and conceptualized in care provided by pharmacists with patients and (2) describe, interpret, and compare patient preferences and expectations of PC in care provided by pharmacists with patients.

Methods: This study used a qualitative directed content analysis design. Data were collected using semi-structured, in-depth interviews from a key-informant nominated sample of patients and pharmacists spread over nine U.S. states and three types of outpatient care settings. All pharmacist study participants (n=9) were actively providing care services and had a minimum of 10,000 hours of experience providing care consistent with the PPCP. Patient study participants (n=6) were receiving care from pharmacists enrolled in the study and had multiple chronic conditions. The trustworthiness of the qualitative data collected was assessed using methods outlined by Guba & Krefting.

Results: For Objective 1, analysis of the data and review of the pharmacy and broader PC literature yielded the "Team-based Outpatient Pharmacist Practice for Patient-Centeredness" (TOPPP) model, consisting of 13 concepts and seven conceptual groupings. A comparison between data provided by pharmacists and patients also showed high levels of agreement about the relative importance of each respective PC concept, with some differences. For Objective 2, data analysis revealed three patient archetypes related to PC preferences and expectations: '*Partner,' 'Client*,' and '*Customer*.'

Discussion/Conclusion: The study's first overarching finding is that PC in pharmacist practice is (a) broader in scope, (b) more granular in specificity and, (c) more connected to other healthcare disciplines than currently conceptualized. The study's second overarching finding is that PC in pharmacist practice is achievable across outpatient care contexts, especially with careful recognition of the preferences and expectations of the patients participating in and receiving care. The findings from this study open numerous avenues for hypothesis generation and future research into PCC provided by pharmacists with patients about best practices, professional training, measurement validation, system design, value-based payment assessments, and remediation of care barriers.

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List of Acronyms

AHRQ: Agency for Healthcare Research and Quality

ASHP: American Society of Health-System Pharmacists

CAHPS: Consumer Assessment of Healthcare Providers and Systems

CMS: Center for Medicare and Medicaid Services

Co-PI: Co-principal investigator

COPD: Chronic Obstructive Pulmonary Disease

DSM-5: Diagnostic and Statistical Manual of Mental Disorders, 5th edition

DTP: Drug Therapy Problems

FQHC: Federally Qualified Health Center

GMPC: "Gothenburg Model of Person-Centred Care"

HCAHPS: Hospital Consumer Assessment of Healthcare Providers and Systems

HIV: Human Immunodeficiency Virus

INR: International Normalized Ratio

IoM: Institute of Medicine

IRB: Institutional Review Board

JCPP: Joint Commission of Pharmacy Practitioners

MPC: "Integrative Model of Patient-Centeredness"

PC: Patient-Centeredness

PCC: Patient-Centered Care

PCMH: Patient-Centered Medical Home

PCNF: "Person-centered Nursing Framework"

PCPF: "Person-centered Practice Framework"

PCPM: “Pharmaceutical Care Practice Model”

PCPS: “Patient-Centered Pharmacy Services Model”

PI: Principal Investigator

PPAC: Pharmacy Practice Activity Classification

PPCP: “Pharmacist Patient Care Process”

PQA: Pharmacy Quality Alliance

PREM: Patient-reported Experience Measures

PROM: Patient-reported Outcome Measure

TOPPP: “Team-based Outpatient Pharmacist Practice for Patient-Centeredness” Model

UMPA: “Utrecht’s Model for Patient-Centred Communication in the Pharmacy”

CHAPTER 1. INTRODUCTION

Six out of every ten Americans are diagnosed with a chronic disease, accounting for at least three quarters of every healthcare dollar spent in the country. Chronic disease is an on-going pandemic that is the leading cause of disability and mortality in the United States.[1] Healthcare professionals, policymakers, academics, patients and their families generally agree that team-based, '*Patient-Centered Care'* (PCC) is essential to successful prevention and management of chronic disease and promotion of health and well-being.[2–5] This stems from growing evidence that high quality care leading to desirable and sustainable outcomes for chronic diseases (i.e., clinical markers, cost savings, care experience, care quality, etc.) is positively impacted by "care that is respectful of, and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions."[6] PCC is also viewed as a moral and desirable end in and of itself, regardless of the clinical outcomes or savings it produces.[7]

PCC is informed by the theoretical construct of '*Patient-Centeredness'* (PC). Thus, PC and PCC are intertwined but also have distinct meanings and are not interchangeable. PC refers to intangible concepts like philosophy, values, or principles (e.g., dignity, respect, personalization, etc.) that underlie and inform *Patient-Centered Care*.[8,9] PCC refers to the "concrete activities, behaviors, and practices that operationalize the theoretical construct of *Patient-Centeredness* (PC)."[8]

Problem Statement

Despite the general consensus about the relevance and importance of PC and PCC, there is substantial ambiguity and divergent thinking about the explicit meaning,

measurement, and implementation of the terms almost 50-years after its formative arrival in the literature.[5,9–15] For example, PC in the Medicine tradition emphasizes the patient-provider relationship in PCC activities involving the medical decision-making process. In contrast, PC in Nursing focuses on orienting and organizing care systems around a person's beliefs, values, and needs that are manifested through PCC activities.[16,17] The Medicine and Nursing approaches share several common elements but are also distinguishable, partly due to their origination and development in separate and disconnected research spaces. This example is representative of the fragmented nature of the PC and PCC literature.

The wide and variable use of PC and PCC terminology in healthcare practice, research, and policy led to an observation by Hawkes in 2015 that there are more evangelists of PCC than there are practitioners of it.[11,18] Said another way, the predominant challenge for PC and PCC research and practice is not convincing stakeholders of its importance and relevance, but generating awareness that they may not be practicing it.[19] This disconnect represents an increasing risk that PC and PCC will merely become buzzwords vulnerable to specious or even self-serving uses.[11,18–20]

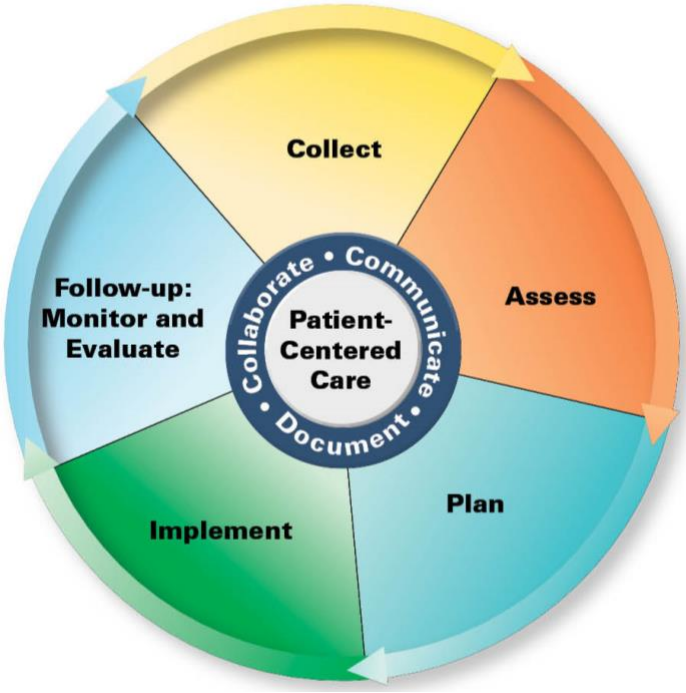
The contemporary PC research community, by and large, recognizes this possibility and is focused on identifying the construct's commonalities across populations (e.g., age, disease), care settings (e.g., outpatient, inpatient, nursing home), professional disciplines (e.g., Medicine, Nursing), etc. For example, PC approaches in Medicine and Nursing are both rooted in a respect for a patient's beliefs, acknowledgment of patient individuality, and a biopsychosocial perspective even though they emphasize different aspects of care (i.e., 2-person medical decision making versus organizing the care environment)[16,17]

These differences may be attributable to the distinctive perceptions and expectations inherent to the respective roles of a physician and nurse on a healthcare team. Still, both professional approaches are more similar than they are different. Furthermore, formally elucidating what links and separates alternative conceptualizations of PC is a necessary precursor for achieving PCC measures and interventions with better fidelity, a more robust theoretical framework, and producing findings meaningful for modern integrated healthcare practice involving caregivers from multiple professions.[5,11,20,21] Of course, these achievements require different health professions to already have a clear and common understanding of what constitutes PC in their respective disciplines and practices.

This requirement represents a sizable gap for the profession of Pharmacy. This is not to say that pharmacists do not recognize the importance and applicability of PC, evidenced by PCC's placement at the center of the Joint Commission of Pharmacy Practitioners (JCPP) Pharmacist Patient Care Process (PPCP) shown in Figure 1.[22] The PPCP is a key advancement for the Pharmacy profession that brought together 14 different national pharmacy organizations representing diverse care contexts to establish a "consistent process of care in the delivery of patient care services" that enables better recognition, accessibility, expectations, and utilization of pharmacists by patients and providers as reliable medication experts critical to managing the chronic disease.[22] This description highlights an underlying assumption that the PPCP is applicable and relevant to all settings where the care provided by pharmacists with patients takes place. However, the PPCP and its cited references focus almost solely on the patient care steps found on the rim of the cyclical process rather than the PCC construct at its hub. It follows that

better articulation of the definition and conceptualization of the PC is needed to ensure the fidelity in the measurement, practice, and evaluation of PCC provided by pharmacists with patients. To use an adage, "you get what you measure," and if PCC metrics aren't informed by a clear and meaningful PC construct, they are more likely to be blunt, misinterpreted, and easily manipulated standards that worsen patient care rather than improve it.

Figure 1. The Joint Commission of Pharmacists' Practitioners – Pharmacists' Patient Care Process[22]



Using principles of evidence-based practice, pharmacists:
Collect – the necessary subjective & objective information about the patient in order to understand the relevant medical/medication history & clinical status of the patient.
Assess – the information collected & analyze the clinical effects of the patient's therapy in the context of the patient's overall health goals to identify & prioritize problems & achieve optimal care.
Plan – an individualized patient-centered care plan, in collaboration with other healthcare professionals & the patient or caregiver that is evidence-based & cost-effective.
Implement – the care plan in collaboration with other healthcare professionals & the patient or caregiver.
Follow-up: Monitor & Evaluate – the effectiveness of the care plan & modify plan in collaboration with other healthcare professionals & the patient or caregiver as needed.

Rationale & Significance

The rationale for a deeper examination of the definitions, preferences, and experiences of PC from the perspective of patients and pharmacists has significance for revealing a theoretical foundation that can:

1. Improve the quality, expectations, and experience of care provided by pharmacists with patients.
2. Inform the development of instruments that meaningfully measure and evaluate care involving pharmacists.
3. Increase clarity, consistency, and awareness for the professional identity, role, and value of care provided by pharmacists with patients.
4. Improve the design of systems, processes, and services conducive to care provided by pharmacists with patients.
5. Improve consistency, specificity, and intentionality in team-based pharmacist care with patients involving other pharmacists and other care providers.

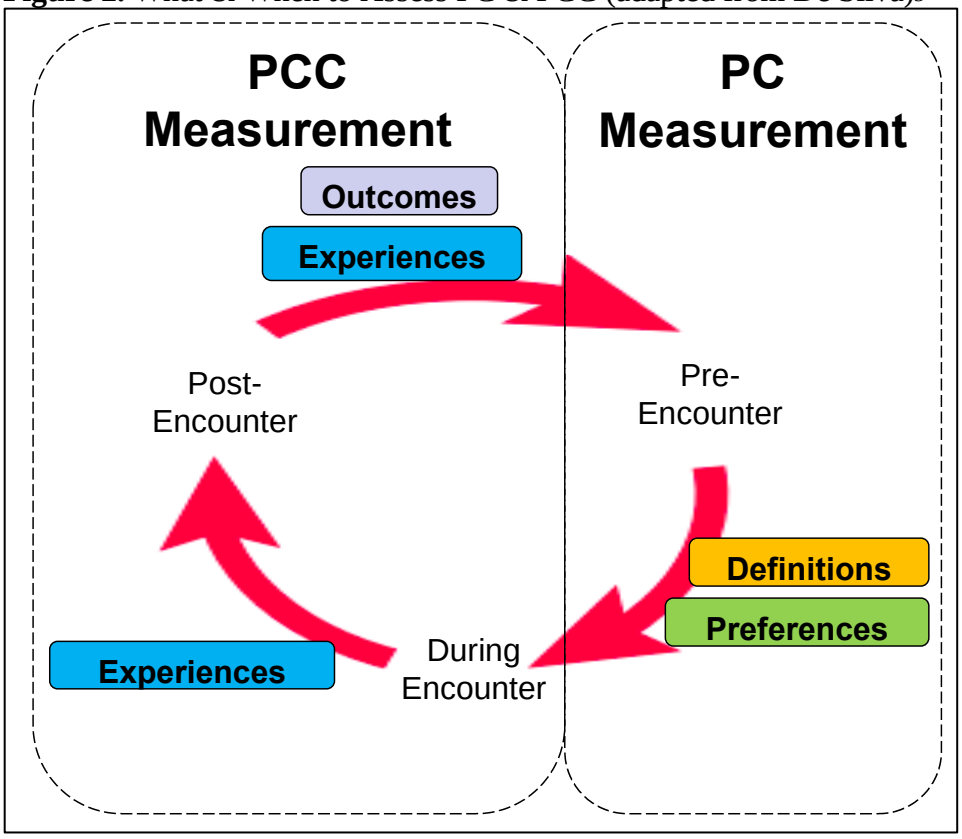
Research Question & Objectives

The research question for this thesis is: "What are the (a) definitions and conceptions as well as the (b) preferences and expectations of PC in care provided by pharmacists with patients?" These aspects are the two primary ways PC is assessed in the literature and provide a prerequisite foundation for meaningful measurement of PCC experiences and outcomes. Figure 2 depicts the ideal time to measure each of these four constructs. Please note that the research questions contain the verbose phrase "care provided by pharmacists with patients" purposefully because it explicitly captures the potential for co-equal roles and shared production in care among the pharmacist, patient, and healthcare team. This phrasing was preferable to alternative wording like "pharmacist care" or "pharmacist-provided care," which conveyed an action done to a patient. The "care provided by pharmacists with patients" language is also meant to imply that the

research question and its corresponding objectives listed below will be investigated from the perspectives of both patients and pharmacists.

The objectives of this study are to: (1) uncover how PC is defined and conceptualized in care provided by pharmacists with patients and (2) describe, interpret, and compare patient preferences and expectations of PC in care provided by pharmacists with patients.

Figure 2. What & When to Assess PC & PCC (adapted from De Silva)[5]



Note: Care pathway represented as sequential, circuitous, & episodic for heuristic purposes only.
Abbreviations: PC=Patient-Centeredness, PCC=Patient-Centered Care

The first objective is accomplished by examining PC means to patients and pharmacists in terms of its conceptual composition and corresponding skills, practices, and behaviors. The second objective is accomplished by examining the kind of care that

patients want from pharmacists and the values and attitudes of the pharmacist providing such care. An examination of PCC experiences and outcomes was not included in the research question or objectives of this thesis because the fidelity of their measurement depends on the definition and conceptualization of PC. Thus, measuring PCC without a well-defined, understood, and meaningful PC construct puts the cart before the horse.

Definitions & Terms

For clarity and consistency throughout the thesis, the following terms are identified as follows:

- Patient-Centeredness – refers to intangible concepts like philosophy, values, or principles (e.g., dignity, respect, personalization, etc.) that underlie and inform *Patient-Centered care*.[8,9]

- Patient-Centered Care – refers to the concrete activities, behaviors, practices, technical interventions, and health systems innovations in service of *Patient-Centeredness* (e.g., self-management support, shared decision making, motivational interviewing, etc.).[8,9]

- Personhood – the quality or condition of being able to engage in reflective evaluation of action…to derive a set of principles that guide decision-making throughout life and determine what one does (i.e., thinks, wants, etc.)...Persons are capable of making choices that are their own.[23,24]

- Construct – a highly abstract term that is defined by less abstract terms (i.e., concepts) and inferred from observable phenomena.[10]

- Concept – a vivid picture of something which helps to understand the category and diversity of a construct.[10]

- Middle-range theory – a theory that bridges theoretical concepts in a model to their corresponding concrete operationalizations.[25]

- Patient empowerment – an approach to the patient and healthcare provider relationship that supports an equitable or fair sharing of knowledge, status and decision-making authority as well as opportunities for the patient to be involved as they so choose[26]

- Patient engagement/enablement - activation of a patient's understandings, capabilities, activities, and willingness to manage their own care combined with the support that enables them to do so.[27]

- Self-management– "the systematic provision of education and supportive interventions by the health care system to increase patients' skills and confidence in managing their health problems, including regular assessment of progress and problems, goal setting, and problem-solving support."[6]

- Motivational interviewing – an approach aimed to support patients in identifying and resolving ambivalence for behavior changes that explores their perceived beliefs and barriers for having success. It is accomplished through four steps consisting of engaging, focusing, evoking, and planning.[28]

- Shared Decision Making – "where clinicians and patients make decisions together using the best available evidence, where patients are encouraged to consider available screening, treatment, or management options and the likely benefits and harms of each."[28]

CHAPTER 2. LITERATURE REVIEW

The purpose of this research study was to more deeply understand Patient-Centeredness (PC) in care provided by pharmacists with patients by (1) uncovering how PC is defined and conceptualized in care provided by pharmacists with patients and (2) describing, interpreting, and comparing preferences and expectations of PC in care provided by pharmacists with patients. This review uses a chronological structure of organization to introduce key contributions to the formation, interpretation, development, and implementation of the PC construct for healthcare in general, followed by its presence within the pharmacist literature.

Search Strategy, Protocols, & Results

The literature search for this thesis used a two-step search strategy guided by an electronic database-driven protocol. Eligible sources included articles in peer-reviewed journal articles found in the following nine databases: CINAHL, Digital Dissertations, Health & Psychosocial Instruments, MEDLINE, PsychInfo, Sociological Abstracts, Academic Search Premier, Cochrane, and EMBASE. These nine databases were selected from the 74 health science databases found in the University of Minnesota Bio-Medical Library because their descriptions best aligned with the purpose and associated search terms of focus for this review. The following terms were searched for within the titles indexed in these databases for both steps of the search:

In Title:

- Patient-Centered* OR Patient-Centred*[1]
- Client-Centered* OR Client-Centred*

[1] Asterisked terms (e.g., Patient-Centered*) represent wildcard terms that vary in spelling or some other manner (e.g., Patient-Centeredness, Patient-Centricity, Patient-Centered care)

- Person-Centered* OR Person-Centred*
- Patient-focused*
- Patient empowerment
- Patient engagement
- Patient self-management
- Shared decision making

The search was limited to publication titles rather than just keywords to reduce results containing undisciplined or frivolous use of PC terminology lacking awareness and understanding of the construct's meaning in the literature.

The multiple spellings of "centered" in the first three bullet points account for regional differences present within the literature. Research originating from North American sources generally use "centered," while "centred" is generally more common in publications authored by Europeans. Including both of these variations was essential for a comprehensive literature search given that important and influential PC research originates from all over the world. Going forward in this thesis, the North American spelling variation will be used unless directly quoting an author or referencing a model where the European spelling is used.

For feasibility, a search result was removed from consideration in the first step of the search process if it was:

- a conference abstract, book review, magazine article, or a short commentary
- written in a non-English language
- undisciplined or opportunistic use of PC terminology peripheral to the overarching ethos (e.g., superficial technology, residential amenities)
- lacking depth and granularity related to PC or *Patient-Centered Care* (PCC). Examples of this might be inadequate sample size, no abstract, no definition or lack of elaboration about meaning, or lack of citations.

Table 1 and Figure 3 summarize the search protocol by search terms that generated results for both steps of the research process, along with a description and rationale of any adjustments made to search terms and filters for each respective database. Abstracts of the search results were screened for appropriateness and quality by the primary author to produce a reading list. Publications selected for the reading list were more likely to have larger data samples, greater multi-institutional involvement (e.g., academia, clinicians, patients), several publications by the same author(s) over time, and more frequent citations in peer-reviewed journals than publications not selected for the reading list. Sources included for reading and analysis were also collected using alternative methods accounting for suggestions from PC and PCC content experts and frequent references throughout the research literature. Mendeley (Elsevier, Amsterdam, Netherlands) was used to import all sources selected for the reading list, and all duplicate references were merged.[29]

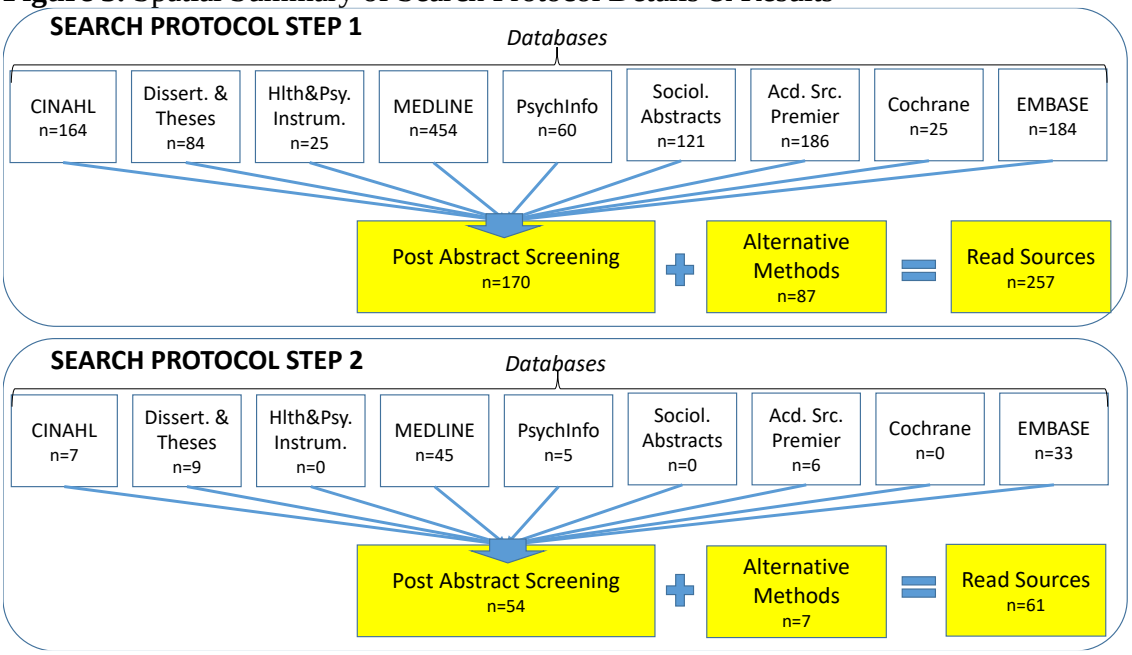
The protocols in the first step of the search process produced 1385 non-duplicated references, with 1298 references from the electronic database search and 87 references generated from PC and PCC content experts or frequent references throughout the PC literature. These initial results were screened using the protocol described above to produce 257 total sources retained for reading and analysis.

Table 1. Search Protocol Details & Results Summary

Database	**Most Recent Search Date**	**Step 1: Broader PC Literature Results** #produced□#kept (Year range)	**Step 2: Pharmacist PC Literature Results*** #produced□#kept (Year range)	**Filter Notes**
CINAHL	7/10/19	164□21 (1993-2015)	7□7 (2006-2017)	Step 1 & 2 limits: research article, peer-reviewed, English, academic journals; exclude MEDLINE
Dissertations & Theses	7/10/19	84□16 (1980-2018)	9□0 (2000-2018)	Step 1 & 2 limits: English, full text
Health & Psychological Instruments	7/10/19	25□5 (1986-2013)	0□0	
MEDLINE	7/10/19	454□56 (1952-2019)	45□39 (1987-2019)	Step 1 & 2 limits: English, full text, Ovid full text Step 2 only: Subj. Heading Word
PsychInfo	7/10/19	60□10 (1998-2018)	5□0 (2010-2014)	Step 1 & 2 limits: English, full text Step 2 only: Subj. Heading
Sociological Abstracts	7/10/19	121□5 (1979-2019)	0□0	Step 1 & 2 limits: English, peer-reviewed, lit. review
Academic Search Premier	7/10/19	186□13 (2002-2019)	6□2 (2013-2016)	Step 1 & 2 limits: full text, English, ref. available, scholarly
Cochrane	7/10/19	25□6 (2005-2019)	0□0	
EMBASE	7/10/19	184□38 (2000-2019)	33□8 (2003-2018)	Step 1 & 2 limits: English, article; exclude MEDLINE
Alternative Methods	NA	87	7	
Non-duplicate Total		1385□257	106□61	

*The number of references "produced" in Step 1 contains some but not all of the sources "produced" in step 2. This is because Step 2 added some additional filters to the Step 1 protocol to narrow down the pharmacist literature, and expanded the types of sources searched for.

Figure 3. Spatial Summary of Search Protocol Details & Results



Abbreviations: Dissert.=Dissertations; Hlth=Health; Psy.=Psychological; Instrm.=Instruments; Sociol.=Sociological; Acd.=Academic; Src.=Search

*The number of references "produced" in Step 1 contains some but not all of the sources "produced" in step 2. This is because Step 2 added some additional filters to the Step 1 protocol to narrow down the pharmacist literature, and expanded the types of sources searched for.

The second step of the search process consisted of repeating the search protocol from the first step with slightly modified search terms and filters to identify PC-related references relevant to pharmacists. These modifications were:

1) An additional search layer in the electronic query of "AND pharm* not pharmacological" for Abstracts. The explicit exclusion of "pharmacological" eliminated results that were product-oriented and outside the scope of the review.

2) Sources from conference abstracts, book reviews, magazines, and short commentaries were no longer excluded from consideration. This adjustment was implemented because the new additional search layer (see #1) limiting results to the pharmacist domain produced a small number of sources that could feasibly be assessed.

This Pharmacy specific search protocol resulted in 106 non-duplicated results, with 99 initial sources coming from the electronic search and six generated from PC

content experts. Abstracts of these search results were screened for appropriateness and quality by the primary author to produce a reading list. The screening process produced 61 sources retained for reading and analysis, which are depicted in Table 2 by search term along with corresponding information about the source type, the analytical level of depth and granularity of PC conducted, and characterization of its linkage to the PC literature.

Classifications of source type included original research (OR), books or book chapters (BK), commentaries (CM), review articles (RA), and reports (RP). The characterization of a sources linkage to the PC literature was categorized as weakly linked ("Weak"), consistent with but indirectly linked to PC ("Consistent/Indirect"), linked with PC in the pharmacist literature ("Pharm"), linked with PC in the overarching seminal literature ("Seminal"), and links PC between the pharmacist and overarching seminal literature ("Pharm&Sem").

Operationally, a "Weak" linkage represents a low level of analytical depth and granularity of the PC construct, such as lacking an explicit definition or meaningful exploration. "Consistent/Indirect" linkage indicates a source that contains content consistent with the PC construct but fails to meaningfully connect it to any conceptualization of the construct in the Pharmacy or overarching literature. A "Pharm" linkage referred to a source containing PC terminology and corresponding citations that define, describe, or conceptualize the PC construct as it relates to pharmacist practice. A "Seminal" linkage referred to a source citing a PC definition and conceptualization that was well-recognized and highly referenced in the literature review (i.e., ≥30 references contained within search results produced by step 1). A "Pharm&Sem" linkage referred

to a source that met the criteria for both "Pharm" and "Seminal" sources. Figure 4 also depicts the association of the step 2 search results retained for reading and analysis by the original search team and characterization of their linkage ("Link Type") to PC.

Table 2. Step 2 Search Results Retained for Reading & Analysis by Search Term

Title search term (#)	Author	Source Type+	Link Type (Key Source)^
Patient-Cent*/ Person-Cent* (29)	Berger[30]	CM	Consistent/Indirect
	Boswell et al.[31]	CM	Consistent/Indirect
	Carlin et al.[32]	OR	Weak
	Cipolle et al.[33]	BK	Pharm&Sem (Stewart,[34] PCMH[35])
	Cooke et al.[36]	CM	Weak
	Dowse[37]	CM	Pharm&Sem (IoM,[11] Stewart,[38] Epstein[2])
	Grice et al.[39]	OR	Seminal (Krupat[40])
	Hope et al.[41]	OR	Weak
	Jones[42]	CM	Weak
	Kibicho et al.[43]	OR	Pharm&Sem (Hepler&Strand,[44] Epstein[45])
	Kok et al.[46]	OR	Seminal (Stewart[38])
	Liu et al.[47]	OR	Consistent/Indirect
	Luetcsch et al.[48]	OR	Consistent/Indirect
	Mansur et al.[49]	CM	Weak
	Mayer et al.[50]	OR	Seminal (IoM[6])
	McPherson et al.[51]	OR	Weak
	Moczygemba et al.[52]	OR	Consistent/Indirect
	Murad et al.[53]	RA	Pharm (Chewning[54])
	Nab et al.[55]	OR	Pharm (Cipolle et al.[33])
	Naughton[56]	OR	Pharm&Sem (Epstein,[57] Krupat,[40] de Oliveira&Shoemaker[58])
	Nunes-da-Cunha et al.[59]	OR	Weak
	de Oliveira et al.[58]	OR	Pharm (Cipolle et al.[33])
	Sabater-Galindo et al.[60]	OR	Pharm (Cipolle[61])
	Sanchez[62]	CM	Pharm&Sem (Stewart[38])
	Thomson et al.[63]	OR	Consistent/Indirect
	Trujillo et al.[64]	OR	Weak
	Wolters et al.[65]	RA	Pharm&Sem (Hepler&Strand,[44] Stewart,[38] IoM,[6] Mead&Bower[66])
	Woods et al.[67]	CM	Pharm (Hepler&Strand[44])
	Worley et al.[68]	OR	Pharm&Sem (Cipolle et al.,[33] Chewning,[54] Stewart,[34] Mead&Bower[69])

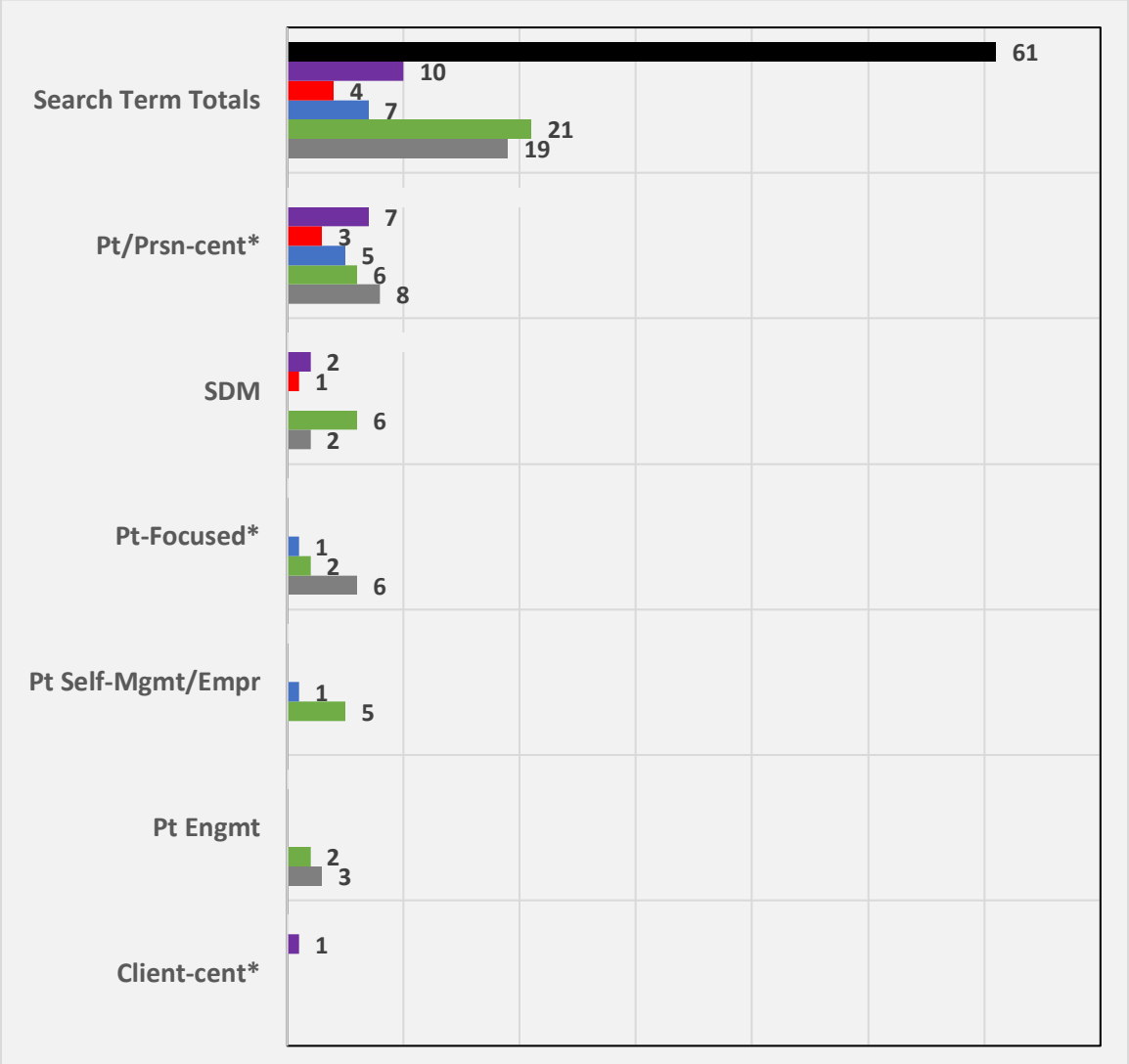
Shared Decision Making (11)	Anderson et al.[70]	OR	Consistent/Indirect
	Kassam et al.[71]	OR	Pharm&Sem (Cipolle et al.,[33] Chewning,[54] Stewart[72])
	Kassam et al.[73]	OR	Pharm&Sem (Chewning,[54] Stewart[72])
	Kayyali et al.[74]	OR	Indirect
	Marcum et al.[75]	CM	Weak
	Patel et al.[76]	CM	Weak
	Rosenberg-Yunger et al.[77]	OR	Consistent/Indirect
	Schafer et al.[78]	OR	Seminal (IoM[6])
	Smith et al.[79]	OR	Consistent/Indirect
	Verbrugghe et al.[80]	OR	Consistent/Indirect
	Younas et al.[81]	OR	Consistent/Indirect
Patient-focused* (9)	Al-Shaqha et al.[82]	OR	Pharm (Cipolle et al.,[33] Hepler&Strand[44])
	Decostro[83]	CM	Weak
	Gray et al.[84]	CM	Weak
	Kamin[85]	CM	Weak
	Kuschinsky et al.[86]	CM	Weak
	Schultz et al.[87]	RP	Weak
	Shane et al.[88]	CM	Consistent/Indirect
	Talley[89]	CM	Weak
	Vogel et al.[90]	RP	Consistent/Indirect
Patient Self-Management/ Empowerment (6)	Garrett et al.[91]	OR	Pharm (Cipolle et al.,[33] Hepler&Strand[44])
	Mitchell et al.[92]	OR	Consistent/Indirect
	Smith et al.[93]	OR	Consistent/Indirect
	Wong et al.[94]	OR	Consistent/Indirect
	Wong et al.[95]	OR	Consistent/Indirect
	Van den Berg et al.[96]	OR	Consistent/Indirect
Patient Engagement (5)	Bates et al.[97]	OR	Consistent/Indirect
	Felkey et al.[98]	CM	Weak
	Fox et al.[99]	CM	Weak
	Manias et al.[100]	OR	Consistent/Indirect
	Rucker[101]	CM	Weak
Client-Cent* (1)	Chewning et al.[54]	OR	Pharm&Sem (Cipolle et al.,[33] Hepler&Strand,[44] Stewart[102])

*Asterisked search terms represent wildcards that vary in spelling or some other manner (i.e., Patient-Centeredness, Patient-Centricity, Patient-Centered care, etc.)

+Source Type Abbreviations: CM=Commentary, OR=Original Research, BK=Book, RA=Review Article, RP=Reports.

^Key Source Abbreviations: IoM=Institute of Medicine, ASHP= American Society of Hospital Pharmacists, PCMH=Patient Centered Medical Home.

Figure 4. Step 2 Search Results Retained for Reading & Analysis by Search Term & Link Type (i.e., Key Source in PC Literature)



	Client-cent*	Pt Engmt	Pt Self-Mgmt/Empr	Pt-Focused*	SDM	Pt/Prsn-cent*	Search Term Totals
Link Totals	1	5	6	9	11	29	61
Pharm&Seminal	1	0	0	0	2	7	10
Seminal	0	0	0	0	1	3	4
Pharm	0	0	1	1	0	5	7
Consistent/Indirect	0	2	5	2	6	6	21
Weak	0	3	0	6	2	8	19

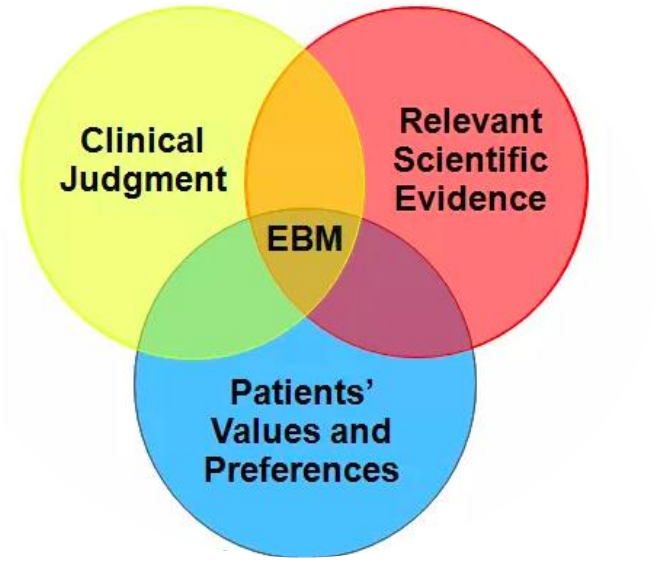
*Asterisked search terms represent wildcards that vary in spelling or some other manner (e.g., Patient-Centeredness, Patient-Centricity, Patient-Centered care)
Abbreviations: Pt=Patient; Prsn=person; SDM=Shared Decision Making; Mgmt=Management; Engmt=Engagement

In summary, a search of nine databases using 18 search terms associated with PC resulted in only 14 results with explicit connections to the seminal PC literature. The results of this search reveal a PC literature in the Pharmacy discipline lacking in depth, breadth, and connection to the seminal works of the broader healthcare literature for PC.

Overview of the PC Literature

Patient-Centeredness (PC) and Patient-Centered Care (PCC) are widely endorsed as essential to excellent healthcare by clinicians, government officials, academics, and, most importantly, patients themselves. The PC and PCC constructs have been included in legislation, regulations, and policy in the United Kingdom (e.g., National Health Service's 'No decision about me, without me' policy initiatives),[103,104] the United States (e.g., Affordable Care Act, Patient-Centered Medical Homes, Patient-Centered Outcomes Research Institute),[105] Australia (e.g., Australian Qualifications Framework, Better Health Channel),[106] Germany (Patients' Rights Laws),[107] the World Health Organization,[108] and more.[11] PC and PCC also have a large and thriving research community with studies spanning several chronic disease states, populations, care settings, professions, and more.[20] The perceived importance and relevance of PC and PCC are attributed to its potential for generating high-quality care consistent with Evidence-based Medicine (see Figure 5),[109] improving desirable health-related outcomes, and decreasing healthcare costs in chronic diseases.[20] Some proponents also argue that the PC and PCC's placement of the patient's interests first gives it an intrinsic value which outweighs any outcomes it does or does not produce.[7]

Figure 5. The Three Overlapping Components of Evidence-based Medicine (adapted from Wagner et al.)[7]



Abbreviations: EBM=Evidence-based Medicine

The broad consensus surrounding PC's importance and relevance in healthcare contrasts starkly with an ongoing debate in the literature over what the term means. This is not to say the PC construct lacks stable theoretical foundations or well-developed concepts, but that its composition and arrangement differ across research communities and studies involving diverse care settings (e.g., outpatient, inpatient, nursing home), professions (e.g., Medicine, Nursing), populations (e.g., age, disease, country), and more. Even when some research communities agree on nomenclature, sharp differences may remain over the relative priority, importance, and interpretation assigned to these PC concepts. Cribb[20] analogized the PC construct to a mixture of jigsaw puzzle pieces originating from separate puzzle sets, where it is unclear if things will line up neatly and fit together as one. Nonetheless, the concepts found in the PC literature is more similar than they are different, often sharing common origins, influences, values, and ideas. The following sections represent an attempt to chronologically trace the construct's origins,

historical development, and present state overall and in the pharmacist context in particular.

The Formative Origins of PC

The origins of the PC construct are deep, with influences extending back to the Hippocratic principle (400 BCE),[110] Aristotle's Nicomachean ethic of an individualized approach to treating a person (350 BCE),[111] and Immanuel Kant's moral ideal of respecting one's autonomy (1797).[112,113] However, the first commonly recognized PC antecedent was Rogers' *'client-centered therapy*,' which appears in the psychology literature in 1951.[114,115] Rogers asserted that individuals are capable of remedying their problems using their own resources when given the supportive conditions to do so.[114,115] This idea suggested an expanded focus on the subjective and holistic experience of persons undergoing medical treatment, including the development of a *'therapeutic alliance'* between patient and doctor.

Another antecedent term, '*Patient-Centered Medicine*,' appeared in the 1960s within the works of psychoanalysts Michael and Enid Balint, who defined it as "the patient's total experience of illness"[116,117] and "understanding the patient as a unique human being,"[118] respectively. This was followed by other notable contributions from Neuman & Young in 1972, advocating for a "total-person approach to patient problems" in Nursing,[119] as well as Byrne & Long's '*Patient-Centered Medical Practice*' in 1976, where a physician uses the patient's knowledge and experiences to guide interactions.[120]

An instrumental contribution from 1977 that is still heavily utilized in the literature today is psychiatrist George Engel's '*biopsychosocial perspective.*'[121,122] This philosophical concept directly challenged a prevailing view at the time that health and

human development were sufficiently explainable by biological and psychological factors, and argued the necessary inclusion of socio-environmental elements. Almost a decade later in 1984, British-Canadian physician Ian McWhinney provided a strong case for Medicine to adopt this perspective citing philosopher Thomas Kuhn's idea that scientific progression periodically underwent dramatic '*paradigm shifts*,' where accepted views about the nature of things should be abandoned when an alternative model better accounts for anomalies.[123,124] McWhinney argued that several anomalies under the disease-oriented paradigm of medical practice (e.g., patients experiencing illness without a diagnosable disease, the distinction between treatment and healing) were better explained by a person-oriented paradigm reflecting a more holistic biopsychosocial perspective that respected patient priorities.[117] He and his team described this approach as:

> *"the physician tr[ying] to enter the patient's world, to see the illness through the patient's eyes. He does this by behaviour which invites and facilitates openness by the patient. The central objective in every interaction is to allow the patient to express all the reasons for his attendance. The doctor's aim is to understand each patient's expectations, feelings, and fears. Every patient who seeks help has some expectations of the visit, not necessarily made explicit."*[125]

McWhinney's contributions preceded the proliferation of the PC research agenda in various fields, the most robust being Medicine, health Public Policy, and Nursing.[16] This expanded presence reflected a growing recognition of the construct's importance and applicability within diverse areas, but it also introduced challenging complexities in determining a unified meaning, conceptualization, and operationalization of PC. The following sections describe the development of the PC construct within its three seminal

fields, highlighting the complications inherent to the construct's subjective nature, multidimensional composition, and applicability in diverse contexts.

Early Interpretations & Development of the PC Construct

The Conceptualization of PC in Medicine

Arguably one of the most influential contributors to PC research in the medical literature is Canadian primary care physician Moira Stewart, who is a protégé of McWhinney.[126] Her interpretation of the PC construct was driven by a desire to improve the '*physician-patient relationship*,' particularly within the primary care setting. As such, much of the PC work from Medicine at this time conceived PC and PCC from a two-person medicine perspective involving a doctor and patient.

Stewart identifies six aspects of patient-centered communication that patients desire when communicating with their physicians:[34,72,127]

1. explores the patients' experience and expectations of disease and illness (i.e., feelings about being ill, ideas about what is wrong, the impact of the problem on daily function, expectations of what should be done);
2. seeks an integrated understanding of the patients' world (i.e., their whole person, emotional needs, and life issues);
3. finds common ground on what the problem is and mutually agrees on management;
4. enhances disease prevention and health promotion;
5. enhances the continuing relationship between the patient and the doctor;[38] and
6. being realistic about what can be achieved.[128]

Stewart argues that PC requires a willingness by the physician to go beyond a

patient's biomedical problems and immerse themselves in the person's overall well-being related to the psychosocial context. It also means supporting the patient's involvement in decision-making and exposure to information at the level that they desire. For example, some research suggests that older patients with more medical problems may prefer more physician-directed relationships compared to younger and healthier individuals.[117,129,130]

Many of Stewart's studies have built on her interpretive work using an instrument called the 'Patient Perception of Patient Centeredness' to measure patient perceptions of PC and associating them with clinical and non-clinical outcomes (e.g., post-encounter discomfort, additional diagnostic tests, future referrals). One application of this instrument in the primary care setting found patient perceptions of having received PCC positively associated with better alleviation of discomforts and concerns, improvement in emotional health, and fewer referrals or diagnostic tests (i.e., reduced healthcare costs).[131] Another notable finding from the study was that the patient perceptions of PC were more predictive of these positive outcomes than analyses of observable PCC behaviors by the physicians (e.g., provider-oriented activity checklists for asking open-ended questions, prolonging silence to encourage patient-led conversation). This suggests that the instruments capturing patient-reported perceptions are superior to that of physicians or content experts.[21,34,38,126,131–133] This is not to say that practice tools like checklists of behaviors that clinicians can follow based on Stewart's conceptualization of PC, such as Krupat's "Four Habits Model"[40] (Table 3), were uninformative or not useful. Instead, these findings indicate they are potentially useful tools for achieving PCC but should not be mistaken as being a sufficient surrogate measure that PCC has taken place.

Table 3. Krupat's "Four Habits Model" of PCC[40]

HABITS	BEHAVIORS
1. Invest in the Beginning	Show familiarity Greet warmly Engage in small talk Question style Expansion of concerns Elicit full agenda
2. Elicit Patient's Perspective	Patient's understanding of the problem Goals for visit Impact on life
3. Demonstrate Empathy	Encourage emotional expression Accept feelings Identify feelings Show good nonverbal behavior
4. Invest in End	Use patients frame of reference Allow time to absorb Give clear explanations Offer rationale for tests Test for comprehension Involve in decisions Explore plan acceptability Explore barriers Encourage questions Plan for follow-up

Stewart's conceptualization of PC and associated finding that the construct's presence is best captured through patient perceptions became the basis for further exploration and measurement of the construct by other researchers. For example, Little's "Consultation Care Measure" assessed patient preferences for consultations from their doctors in general practice surgery settings. His findings suggest that patients want physicians to: communicate (i.e., be approachable, listen, genuinely investigate patient concerns, and provide information clearly), partner (i.e., deliberate with the patient and come to an agreement with them about thoughts, problems, and therapy), and promote their health (i.e., recommend how to maintain health and mitigate future ailments).[21]

Little's results were also instrumental in influencing Stewart to add her sixth component of "being realistic about what can be achieved" given limited resources and time.[128] The ability and skill of healthcare providers to work effectively within these limitations is supported by findings from Howie,[117] which show that longer, more in-depth consultations result in better health outcomes than shorter, less specific ones.[117,134,135]

Stewart's PC conceptualization has also been the basis for many instruments exploring the construct's relationship with patient satisfaction in cancer,[136] identifying unmet needs in older people,[137] adherence in ethnically diverse and lower-income populations,[138,139] and training students and residents.[140] However, Stewart would lament that the rapidly growing number and type of instruments being developed (e.g., scales, checklists, interactional analysis) were outpacing adequate assessment of their reliability and validity, thus making comparative evaluations and confidence in findings difficult.[140] Also disappointing was that most robust evaluations of PCC involving these instruments were several randomized controlled trials comparing clinical and non-clinical benefits of patients with diabetes between care from physicians and nurses trained and untrained in PCC practices. The findings yielded mixed to positive results in glucose control and patient satisfaction.[141–143]

PCC instrument quality and impact on health outcomes were not the only sources of debate found in the literature. Several of Stewart's colleagues challenged her conceptualization of PC as a unified construct that was not divisible into stand-alone concepts for measurement or evaluation. One notable critic was Epstein, who although sharing Stewart's focus on the physician-patient relationship in PC as it pertained to communication, did not agree that empirical evidence supported PC as a unified

construct.[9,57] Instead, he offered the following conceptualization of Patient-Centered communication with elements able to be measured and evaluated independently:

1. Eliciting and understanding the patient's perspective - concerns, ideas, expectations, needs, feelings, and functioning.

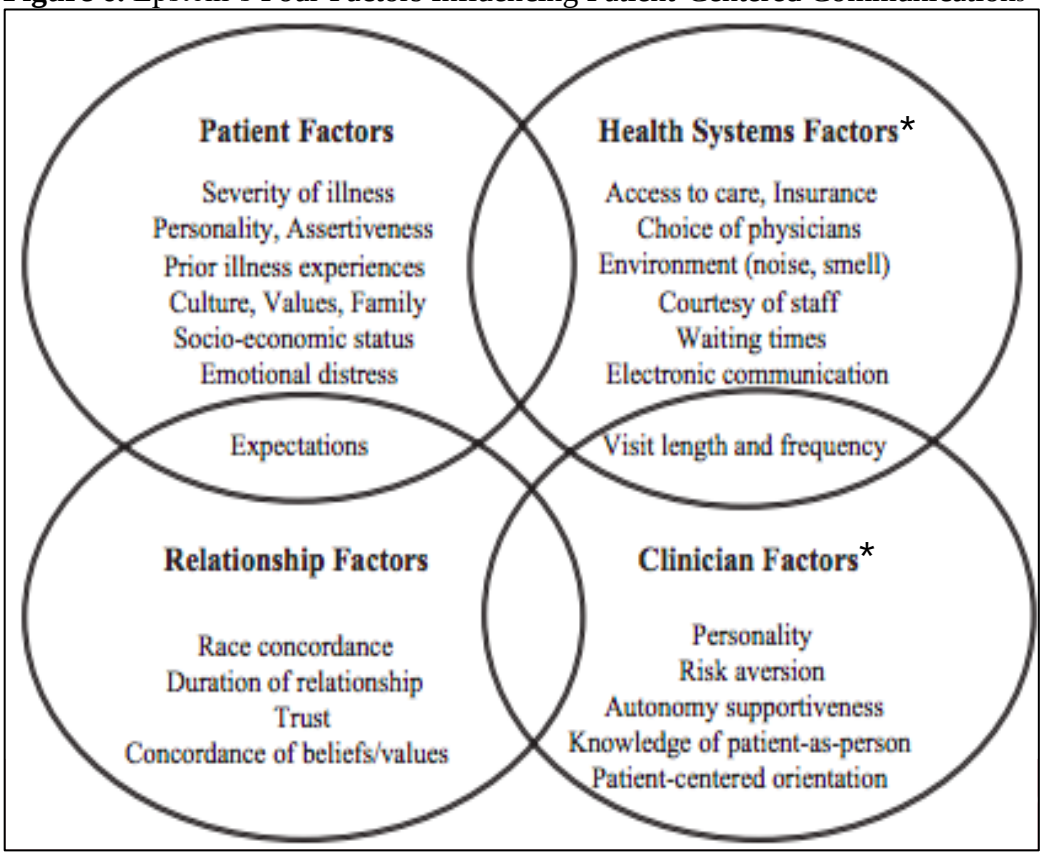
2. Understanding the patient within his or her unique psychosocial context.

3. Reaching a shared understanding of the problem and its treatment with the patient that is concordant with patient values.

4. Helping patients to share power and responsibility by involving them in choices to the degree they wish.

Furthermore, Epstein identified four categories of independent mediating factors (Figure 6) that altered the relationships among these four overarching concepts and were not accounted for in Stewart's unified PC construct. Three of these factors represented characteristics of the patient, clinician, and the relationship between them with the fourth pertaining to the health system environment under which the encounter took place.

Figure 6. Epstein's Four Factors Influencing Patient-Centered Communication[9]



*Factors not present within Stewart's PCC Model.

Epstein's idea that PC is not a unitary concept fits with another seminal interpretation of the PC construct contributed by Mead & Bower. This pair aimed to capture the PC construct beyond just the primary care context, and within the field of Medicine more generally through a comprehensive review of the literature.[66] Mead & Bower identify and describe five overlapping but divisible components of PC:

1. Biopsychosocial perspective
2. Patient as a Unique Person
3. Sharing power and responsibility
4. Therapeutic alliance
5. Doctor as person

Mead & Bower's first concept in PC is the '*Biopsychosocial Perspective,'* which they define as "a perspective on illness that combined biological, psychological, and social factors" is necessary to account for the full range of problems presented in primary care. This concept was borrowed directly from Engel but also drew from work by Stott and Davis[144] that asserted a true '*Biopsychosocial perspective*' is not just about managing existing problems from acute and chronic disorders but also promoting health-related behaviors and wellness.

The second concept identified by Mead & Bower is '*Patient as Unique Person*' and refers to understanding the personal meaning and experience of the illness (i.e., biography; personal meaning, expectations, fears) for each individual patient, not just the objective markers indicating the presence of a disease. This idea also relates to Parson's 1951 work on the "sick role" and the corresponding rights and responsibilities that society attributes to those who occupy and assume this role.[145]

'*Sharing power and responsibility'* is the third concept recognized by Mead & Bower, defined as the physician having "sensitivity to patients' preferences for information and shared decision-making and respond appropriately to these." This element drew from Byrne and Long's[120] work on employing an egalitarian approach to provider and patient relationships that are based on concordance rather parentalism (i.e., parent-child relationship). Mead & Bower were uncertain if a truly symmetrical physician-patient relationship could be achieved for all patients but asserted that it should be pursued and supported as much as possible. Perhaps the most recognized operationalization of this concept are tools used for '*Shared Decision Making*' such as decision aids. Decision aids frame patient-provider encounters so that patients can take

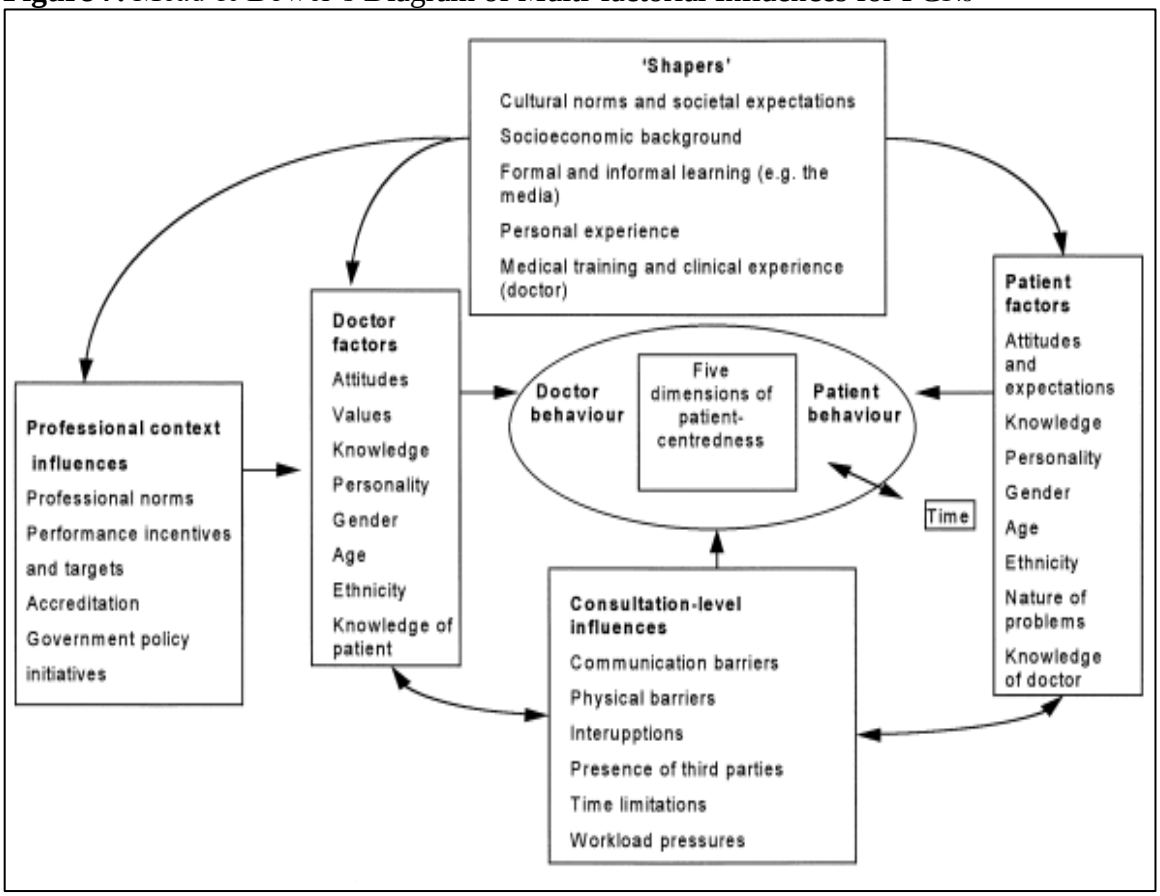
an active role in making decisions in their treatment and care by highlighting what important decisions need to be made and what information from them and the clinician are useful for making them.[146] This approach is particularly useful in cases where two or more suitable choices are available.

Mead & Bower's fourth PC concept is the '*Therapeutic Alliance,'*[114] which comes from the work conducted by Carl Rogers, and is defined as "developing common therapeutic goals and enhancing the personal bond between doctor and patient." The pair further stated that such an alliance could be present without PC being achieved, but that PC could not be achieved without a '*Therapeutic Alliance'* being present. Roth & Fonagy[147] deepened the conceptualization to include three aspects pertaining to a patient and physician's: (1) perceived relevance and potency of an intervention, (2) agreement about treatment goals, and (3) and cognitive and affective components related to their personal bond (e.g., caring, sympathetic).

The final concept offered by Mead & Bower was the '*Doctor as person,'* defined as an "awareness of the influence of the personal and subjective qualities of the doctor on the practice of medicine." Just as a patient's characteristics are pertinent to PCC, so too are those belonging to the physician. It follows under this conceptualization of PC that physicians cannot be interchangeable even with identical competencies or training because personal characteristics important to relational dynamics are unaccounted for.

Beyond these five concepts of PC, Mead and Bower also created a model showing adjacent factors influencing PC in the same vein as Epstein, albeit with more granular detail about contextual influences, societal shapers, and the direction of relationships (see Figure 7).

Figure 7. Mead & Bower's Diagram of Multi-factorial Influences for PC[148]



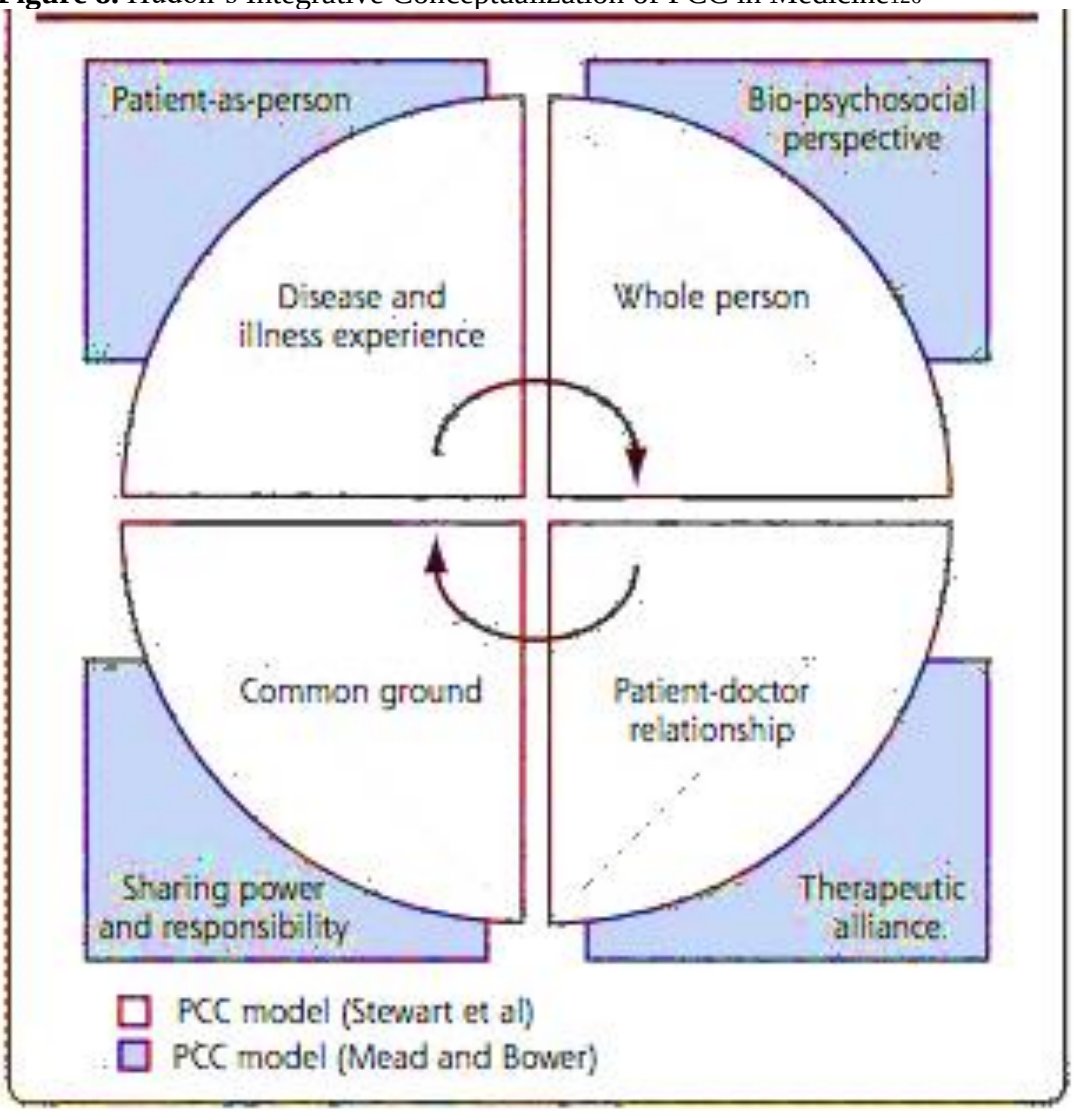
Mead & Bower's conceptual work also informed the development of several instruments for measuring PC and its relationship with health-related outcomes.[149] Many of these studies suggested a positive relationship between PC and patient satisfaction,[150–153] but not all.[154,155] Many similar instruments also attempted to find positive associations between PCC and other clinical health outcomes with minimal success.[149] Like Stewart, these mixed findings were attributed by Mead & Bower to the numerous ways PC and PCC were measured, often without the adequate assessments of validity and reliability needed to determine if relationships with health outcomes existed.[69,148,149] However, even setting aside the inadequate psychometric evaluations of many PC instruments, these findings are unsurprising given that contemporary research attributes only about

20% of patient health outcomes to clinical healthcare and services that patients receive. The remaining 80% of health outcomes are attributed to a person's health behaviors (diet, exercise, alcohol/smoking; 30%), physical environment (clean, safe; 10%), and socioeconomic factors (e.g., education, income, familial support; 40%),[156] some of which are represented as '*influencers*' and '*shapers*' within the Mead & Bower model. Michie et al.,[13] provide a useful perspective for considering this information in the context of PC that differentiates between provider interventions by their "ability to elicit and discuss patient's beliefs" and "ability to activate the patient to take control in the management of their illness." Michie's research showed that although there was no difference between the approaches for patient adherence, the latter approach showed stronger associations with improving physical health measures for the patient. This insight provides an additional lens by which PC research and PCC practices should be assessed.

Although conceptual representations presented by Stewart and Mead & Bower have differences in terminology and compositional character (i.e., unitary vs. divisible), they also display significant work overlap in origins and substance. For example, Hudon[126] showed significant commonalities in four concepts from both models, as depicted in Figure 8.

Furthermore, both Stewart and Mead & Bower called for robust psychometric evaluations of existing PCC instruments rather than the development of new ones for every potential research context. Finally, they both organized their research around clinical encounters involving 2-persons: the patient and physician. This last similarity differed significantly from the PC contributions from the health Public Policy literature occurring around the same time.

Figure 8. Hudon's Integrative Conceptualization of PCC in Medicine[126]



The Conceptualization of PC in Health Public Policy

The seminal work for PC from the health Public Policy research space originates from a collaboration among Harvard Medical School affiliates, which eventually became known as the Picker Institute. The Picker Institute defined PCC as "providing care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions."[50] This definition, along with the corresponding "Picker Principles," was adopted by the United States Institute of

Medicine (IoM) in a 2001 report naming PCC as an essential element for quality improvement in the 21st century U.S. healthcare system. The eight "Picker Principles" are:[51]

1. Respect for patient preferences, values, and expressed needs
2. Coordination and integration of care services
3. Information, education, and communication
4. Physical comfort
5. Emotional support and alleviation of fear and anxiety
6. Involvement of family and close others
7. Continuity and transition from hospital to home
8. Access to care

The following paragraphs provide a summary of the origin and interpretation of each Picker Principle:

The first Picker Principle of '*Respect for patient preferences, values, and expressed needs*' represents an expression by patients that their time in hospitals led them to feel a loss of identity as a unique individual, anxiety about how their lives would be affected by the illness, and a desire to be informed participants in medical decisions. Therefore, the Picker Institute described care that fulfilled this principle as attending to four aspects:

i. How illness and treatment affect a patient's quality of life in terms of lifestyle, cultural values, religious beliefs, the limitations of treatment, and goals in the short and long term.

ii. Ensuring that decision-making is well-informed, shared to the degree that patients desire it, and a dynamic process adapting in step with changes in illness severity (e.g., modified goals, degree of deference

to family, friends, or the clinician).

iii. Respect for patient's physical and emotional needs including dignity, expression, and privacy. The staff's level of kindness and regard for cultural values during care are key indicators of this aspect.

iv. A common understanding and awareness of a patient's desires and expectations of patient autonomy from caregivers and the healthcare system. In other words, patients and providers should come to an agreement about their respective perceptions about what the patient can do on their own and how much they want to do.

The second principle of '*Coordination and integration of care services'* reflects patients' feelings of helplessness in living with their illness as well as the need for capable and trustworthy caregivers. Therefore, PCC is team-based care with a clearly identifiable coordinator, defined team roles, adequate caregiver availability, procedural efficiency, and good communication. These characteristics mean that patients know whom to ask for help and receive timely, useful, patient-friendly, and consistent information from all healthcare team members.

The third principle of '*Information, education, and communication*' originates from patients' concerns about not being fully informed about their illness or prognosis. Therefore, PCC is care that provides timely and comprehensible updates to patients about their treatment and progress as well as status checks from patients about their corresponding outlook. For example, patients undergoing treatment for HIV (Human Immunodeficiency Virus) should be able to understand the reasoning behind choosing one therapeutic option over another, interpret the meaning of test results, and assessed for the impact of treatment on their well-being. It also means that patients know how best to manage their illness to optimize their recovery and avoid future illness.

The fourth principle of '*physical comfort*' is based on patient reports about how

pain levels and the hospital environment affect them. Therefore, it is care that quickly and adequately manages pain shortness of breath or other distress with appropriate levels of support. It also represents respect for patient preferences about privacy in things like going to the bathroom, eating, washing, and more. Finally, PCC must take place in a physical space that is comfortable, clean, and easily accessible to friends and family.

The fifth principle of '*Emotional support and alleviation of fear and anxiety*' is developed from patient input that uncertainty about their clinical status, future quality of life, financial situation, possibility of pain, and impact on themselves and family is a great contributor to suffering. Therefore, PCC is care attuned to these patient anxieties provided by caregivers that earn trust by demonstrating competence by answering these questions and concerns clearly.

The sixth principle of '*Involvement of family and close others*' comes from patients conveying the integral role that family and close friends have in the experience of their illness, including concerns of being a burden. Therefore, PCC is care that accommodates and supports not only the patient but also the individuals who provide essential emotional and social assistance in the patient's care. This starts with appropriately recognizing and respecting the role of patient advocates and surrogates in the medical decision-making process. It can also mean fulfilling a patient's wish to not involve or share information with family members and friends.

The seventh principle of '*Continuity and transition from hospital to home*' is a product of patient worries over having sufficient support when they are no longer under clinical supervision. Therefore, PCC is care that ensures that patients understand the key information related to their transition coordination, planning, and support is understood

and accessible. This means patients know their medication and dietary regimens, how to identify and report concerning symptoms, what actions can be taken to promote health, and who will be taking over their care in the outpatient setting. Support for this principle comes from research findings by Becker suggesting that high levels of care continuity increase the likelihood of acquiring key information for providing holistic care.[117,158]

The eighth principle of '*Access to care*' means that patients feel confident in being able to access care when needed in a timely manner. This principle was not originally identified by the Picker Institute when it first released its findings and was added to the list years later to better capture elements of PCC from the outpatient perspective. The addition of this principle also represents a broader effort to adopt measures and care implementation reflecting the Picker Principles for different settings (e.g., home and community-based services, hospice, nursing home, home health care, outpatient surgery), populations (e.g., American Indians), disease states (e.g., cancer, mental health), and professions (e.g., clinician, dental) beyond its original scope.[159,160] This applicability across these settings also speaks to the macro-level focus (i.e., legislation, regulation, accreditation, payment) and painting of the healthcare system in broad stroke brushes.

The Picker Institute was also not the only party to build off their original work. One notable development for this conceptualization comes from Rathert, using a modified Donabedian model to operationalize interventions and evaluate their relationship with health outcomes.[161] A traditional "Donabedian Structure-Process-Outcome Model" organizes and uni-directionally relates health services into three sequential categories (i.e., structure process outcome) to gauge care quality.[162]

'*Structure*' represents contextual factors surrounding care delivery like facilities, training, and payment. '*Process*' refers to all healthcare activities related to care, and '*Outcome*' signifies the effects of the previous factors such as patient behaviors and patient-reported quality of life. Rathert's modified Donabedian model removes the "Structure" component and identifies the eight "Picker Principles" as the "*Processes*." Additionally, he inserts the concepts of "Moderators" and "Mediators" between the "Processes" and "Outcomes."

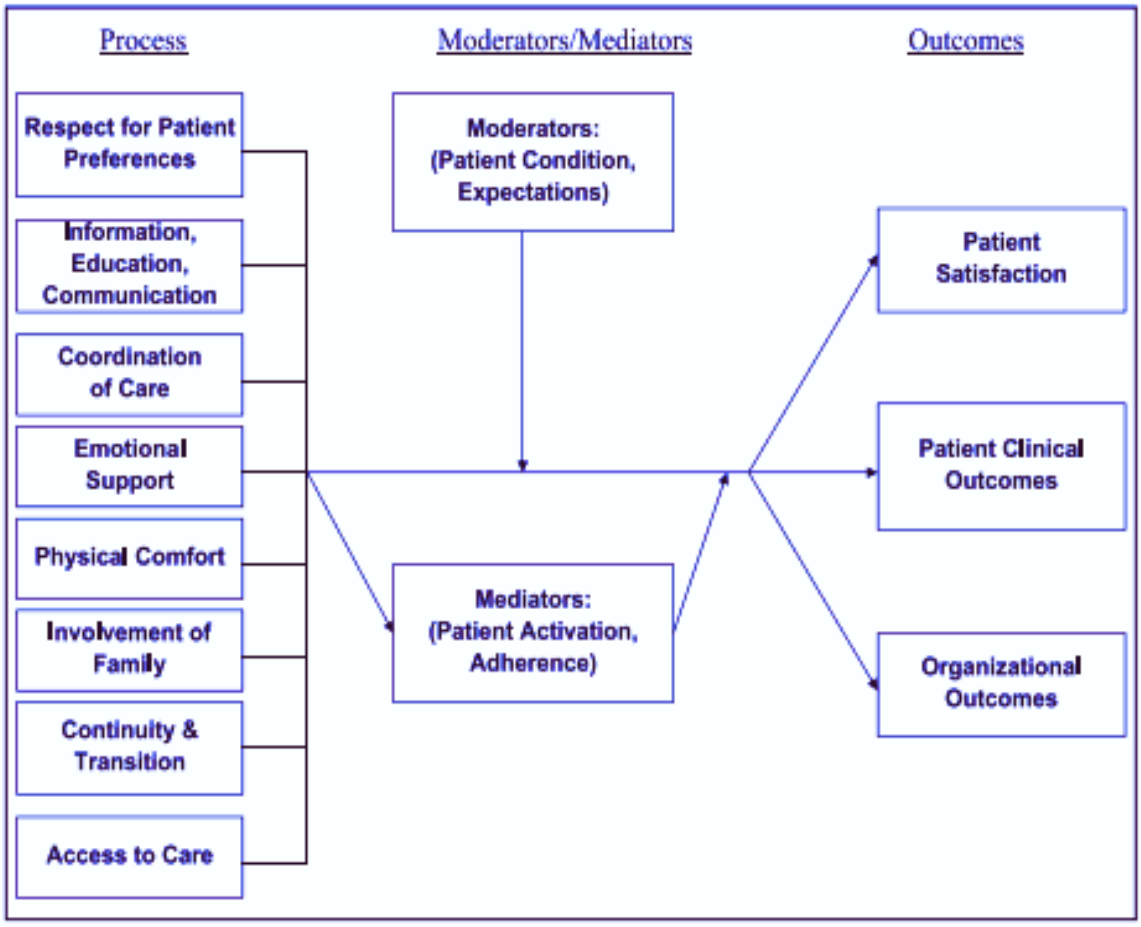
"Moderators" are factors like a patient's condition status, age, insurance coverage, or expectations, all of which represent the conditions under which interventions influence outcomes. For example, patients diagnosed with cancer may require significant emotional support and benefit from care built around these needs.

"Mediators" are factors that explain why interventions produce outcomes like patient activation, adherence, self-efficacy, or trust. For example, Michie's study suggests that patients with diabetes who report effective information exchange and education regarding self-management and strategies with their physicians show higher levels of adherence to medication, dietary changes, and exercise activities.[13]

The modified Donabedian conceptual model for Rathert's operationalization of the Picker Principles is characterized by "processes," "moderators," "mediators," and "outcomes" that can be found in Figure 9.[161] It depicts the intersections and direction of relationships among model constituents that pinpoint where information can be gathered and used for evaluation. For example, one pathway through Rathert's adapted Donabedian Model may begin with the first Picker Principle of *'Respect for patient preferences, values, and expressed needs,'* where a physician and patient collaborate to

develop an individualized treatment plan for a hospital discharge. This collaboration may consider how well a medication regimen fits with a patient's lifestyle, what can be done to ease the transition home, and who should be involved in future care (e.g., other healthcare team members, family).[161,163–165] Then, if amenable "Moderators" such as a patient's expectation to get better and *"*Mediators*"* like good medication adherence are in place, the *"Outcome"* may be better patient satisfaction, well-being, and long-term clinical outcomes.

Figure 9. Rathert's Modified Donabedian Concept Model for PCC in Health Public Policy[161]



Other developments drawing from the Picker Principles are models of care like the Patient-Centered Medical Home (PCMH) and outcome measures like the Agency for Healthcare Research and Quality's (AHRQ) Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), each detailed below.

PCMH is a primary care model for organizing and delivering care that is comprehensive, Patient-Centered, coordinated, accessible, high quality, and safe.[166] It combines characteristics of several mutually agreeable healthcare practice models, such as the IoM's, with a political intent to positively transform the U.S. healthcare system through work with government, employers, and health plans.[167] Some of these

characteristics include a patient having a personal relationship with a healthcare practitioner, adoption of a team-based and holistic care approach, care coordination and integration, and increased care access.[35,166,167]

HCAHPS (pronounced h-caps) is a nationally standardized healthcare experience survey that has publicly reported its results since 2008 so patients can compare hospitals nationwide.[168] HCAHPS is also used by the Center for Medicare and Medicaid Services' (CMS) Value-based Purchasing program to structure its payouts to respective hospitals for care.[169] The implementation of care informed by the Picker Principles and measured through HCAHPS has been positively associated with several positive health outcomes including reduced mortality,[170] medication adherence,[171,172] increased preventative health screenings,[173] as well as reduced rates of nosocomial infections,[168,174] rehospitalizations,[175] and non-urgent utilization of emergency departments.[176,177]

The Conceptualization of PC in Nursing

The third seminal stream of PC research comes from a confluence of two primary sources within the Nursing literature that first merged into the Person-centered Nursing Framework (PCNF), which has recently become the Person-centered Practice Framework (PCPF).[16,178] This framework is a middle-range theory pictured in Figure 10 which combines the works of McCormack on '*authentic consciousness*' (i.e., autonomy)[179] and McCance on care in Nursing.[180]

Figure 10. McCormack & McCance's "Person-Centred Practice Framework" (PCPF)[181]

Unlike the process-oriented PC conceptualizations from Medicine and health Public Policy, which take on a patient perspective to identify a non-ordinal list of essential elements and activities captured by PC, the PCPF incorporates a systems model.[17] This type of approach consists of a step-wise progression of layers needed to create conditions conducive to organizing and delivering care services that center on the individualized needs of the patient and is associated with the term of '*patient-focused care*.'[182] The most recent iteration of McCormack and McCance's multi-layered systems model begins with a newly added "Macro Context" layer and ends on the inside with the

achievement of “Person-centered Outcomes.” The fulfillment of conditions within each layer allows for an internal progression that eventually cultivates the outcomes of PCC.

The “Macro Context*”* consists of four large-scale factors with corresponding definitions:

- Health & Social Care Policy – factors like political imperatives, social determinants of health on healthcare delivery, emerging disease processes, advances in science and technology, and characteristics of the population being served that influence the institution and patient care.[181]

- Strategic Frameworks – “frameworks within the care institution that places the patient at the center of organizational decision making in order to provide high-quality, safe care to patients, and to support workforce service delivery needs by identifying the needs of their patient, increasing the capability of their workforce, encouraging innovation, translating science/research into practice, and building financial sustainability. This includes developing a strategic plan for humanizing healthcare system and how healthcare is provided through consultation with the workforce and other key stakeholders (patients/families).”[181]

- Workforce Developments – “a multi-professional approach for meeting current and increasing demand for healthcare access, minimizing unnecessary wait times for patient, explore new models of care, and eliminating unnecessary clinical variation in following evidence-based care practice.”[181]

- Strategic Leadership – “leadership that is adaptive and takes a ‘cascade’ approach where all levels of the organizational structure and culture participate in the development and creation of necessary skills, energy, and impetus to meet the "wicked problems" faced in modern healthcare.”[181]

The next level is “Prerequisites” and contains the attributes of the provider, which are listed and defined below:

- Professionally competent – "the knowledge, skills, and attitudes of the practitioner to negotiate care options and effectively provide holistic care."[181]

- Developed interpersonal skills – "the ability of the practitioner to communicate at a variety of levels with others, using effective verbal and non-verbal interactions that show personal concern for their situation and a commitment to finding mutual solutions."[181]

- Commitment to the job – "demonstrated commitment of individuals and team members to patients, families, and communities through intentional engagement that focuses on providing holistic evidence-informed care."[181]

- Clarity of beliefs and values – "awareness of the impact of beliefs and values on care provided by practitioners/received by service users and the commitment to reconciling beliefs and values in ways that facilitate person-centredness."[181]

- Knowing self – "the way an individual makes sense of his/her knowing, being, and becoming as a person-centred practitioner through reflection, self-awareness, and engagement with others."[181]

When these five attributes are fulfilled, the model transitions to the next interior level of seven elements making up the "Care Environment" (i.e., the context in which care is delivered) necessary for the nurse to properly perform their role in PCC. These seven elements are identified and defined below:

- Appropriate skill mix – "a range of staff with the) requisite knowledge and skills to provide a quality service."[181]

- Shared decision-making system – "organisational commitment to collaborative, inclusive, and participative ways of engaging within and between teams."[181]

- Effective staff relationships – "interpersonal connections that are productive in the achievement of holistic person-centred care."[181]

- Supportive organizational systems- "organizational systems that promote initiative, creativity, freedom, and safety of persons,

underpinned by a governance framework that emphasizes culture, relationships, values, communication, professional autonomy, and accountability."[181]

- Power sharing – "non-dominant, non-hierarchical relationships that do not exploit individuals, but instead are concerned with achieving the best mutually agreed outcomes through agreed values, goals, wishes, and desires."[181]

- Potential for innovation and risk-taking – "the exercising of professional accountability in decision-making that reflects a balance between the best available evidence, professional judgement, local information, and patient/family preferences."[181]

- Physical environment – "healthcare environments that balance aesthetics with function by patient attention to design, dignity, privacy, sanctuary, choice/control, safety, and universal access with the intention of improving patient, family and staff operational performance and outcomes."[181]

The "Prerequisite" and "Care Environment" concepts found in the framework's outer rings represent the original 'structure' components found in a Donabedian model for care in Nursing developed by McCance.

The flower-shaped interior of the PCPF represents five Donabedian '*Processes*' of person-centred care in Nursing (i.e., delivery of a range of activities) pertaining to interactions between the nurse and person (i.e., patient). These '*Processes*' are expressed through McCormack's adaptation of Kant's five '*imperfect duties*,'[112,113] which represent competing ethical obligations in decision-making situations that are weighed in accordance with a person's (i.e., patient's) therapeutic narrative and the environmental conditions that are present. McCance's '*Processes'* and their corresponding '*Imperfect Duties'* from McCormack's adaptation of Kant,[112,113] which are underlined and in parentheses, are as follows:

- Working with patients' beliefs and values (Mutuality) – the recognition of each other's values as being of equal importance in decision-making.

- Engaging authentically (Negotiation) – patient participating through a culture of care that values the perspectives of each patient as a legitimate foundation for decision making while appreciating that being the ultimate arbiter of decisions is of less importance.

- Shared decision making (Informed Flexibility & Transparency) - – the facilitation of decision making through information sharing and incorporation of novel information into established views and care practices (i.e., informed flexibility) and making explicit the intentions and motivations for action and the boundaries within which care decisions are set (i.e., transparency)

- Having a sympathetic presence (Sympathetic Presence) – an engagement that recognizes the uniqueness and value of each person by appropriately responding to cues that augment coping resources through an awareness of key agendas in daily life.

- Providing holistic care – "the provision of treatment and care that pays attention to the whole person through integration of physiological, sociocultural, developmental, and spiritual dimensions of care."[181] Unlike the previous four processes, this appears to have been added in the latest iteration of the PCPF, does not directly align with any of Kant's imperfect duties, and is essentially a biopsychosocial perspective.

McCormack adapted the term and meaning of '*imperfect duties'* from Kant's ideal of '*Authentic consciousness,'*[112,113] defined as mutual respect and sympathetic benevolence powered by the right of the individual to make one's own determinations in one's own best interest. McCormack describes the concept's application to Nursing as "a consideration of the person's life as a whole to help sustain meaning in life," which orients a nurse to a way of being reflecting a person's values and optimizes their opportunity for self-actualization. This philosophical orientation provides a pathway to developing a trusting relationship between the nurse and patient to build a therapeutic

narrative (i.e., patient's perceptions, experience, and biographical narrative) within a supportive context of care. This context of care is conducive for exchanging information and interpreting actions from a place mutual of respect and understanding for one another's values, roles, and expertise, (i.e., clinical evidence and technical skills of provider as well as life experiences, values, and beliefs for the patient).

The terminus of this pathway is the PCPF's central core of four expected outcomes from person-centred nursing. These are a person's:

- good care experience
- involvement with care
- feeling of well-being
- existence of a healthful culture

It is important to note that health outcomes as they are sometimes understood in healthcare circles (i.e., clinical indicators of healthiness like mortality, morbidity, hemoglobin A1c, lipid profiles, etc.) are not explicitly alluded to in these four elements. This is because '*authentic consciousness'* is not a tool for nurses to identify specific activities or behaviors used to accomplish a ranked checklist of desires for the patient or health system, but a comprehensive approach for how nurses fit into the patient's life as a whole (i.e., model is more descriptive than prescriptive). This approach serves as a treatment in and of itself that transmutes how patients experience illness. Furthermore, McCormack and McCance assert that through this interdependent relationship with a patient, the nurse realizes the value and right each patient has to self-determination and therefore takes responsibility for a patient's care and the outcomes of that care through

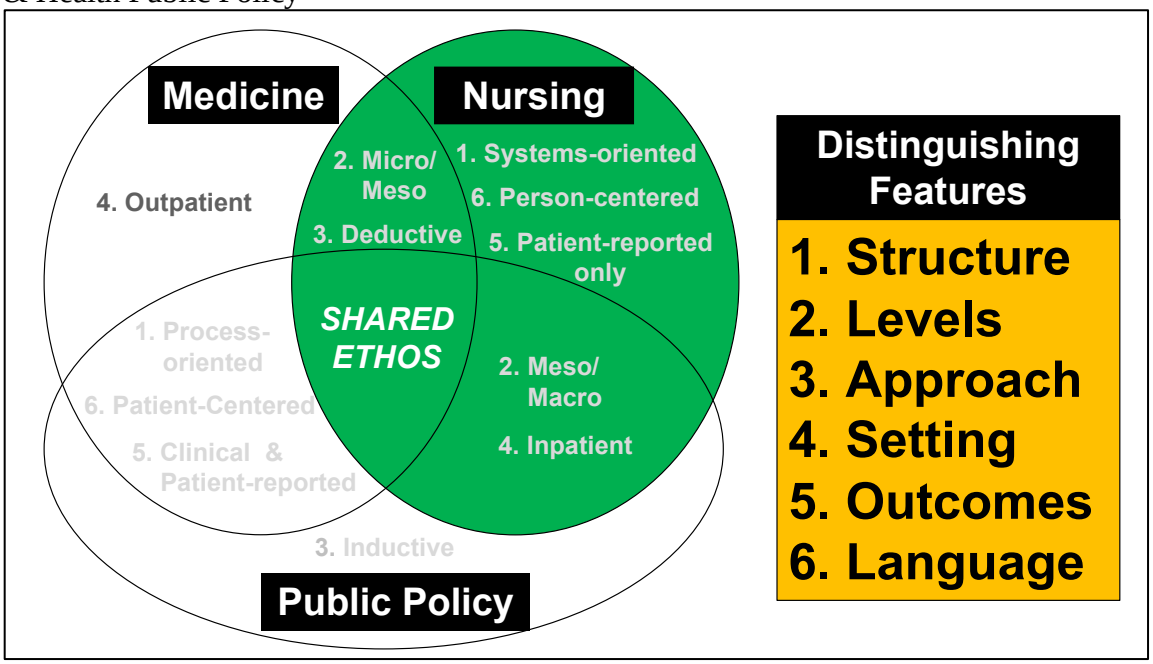
their '*imperfect duties*.' In this sense, PC is a moral imperative and valuable end in and of itself and regardless of the clinical outcomes or savings it produces.[7]

Several PCC quantitative and qualitative measures[183–186] informed by the PCPF have been developed via The International Community of Practice for Person-centred Practice, which is an international research and practice collaborative of academic clinical institutions to advance person-centredness. These tools are utilized to provide the empirical evidence connecting the PCPF's structures and processes with its identified outcomes in a variety of settings like intensive care units,[187] hospitals,[188–190] nursing homes,[191] hospice, children's services,[192,193] and emergency departments.[194] Additional work has progressed the implementation and evaluation of PCPF informed initiatives in professional education curriculums,[195–197] leadership development,[191,198] care delivery training programs,[190,199–201] and cultural change projects.[202]

Comparisons of PC Between in Medicine, Health Public Policy, & Nursing

The theoretical conceptualizations of PC found in the three seminal traditions of Medicine, Nursing, and Public Policy have several overlapping and distinct features, which are shown in Figure 11. A common feature of each of the respective traditions is a shared ethos that puts the individual person at the symbolic center of their care. However, a comparison of the differences reveals how disciplinary background, interests, and assumptions influence the conceptualization and operationalization of the PC construct.

Figure 11. Six Distinguishing Features of PC Conceptualizations in Medicine, Nursing, & Health Public Policy



A first distinguishing feature among the three is the different organizing structures employed. Both Medicine and Public Policy utilize a process-oriented structure that has a process-oriented approach that intentionally undertakes a patient's perspective to determine the essential elements and activities of PC.[17] Thus, both utilize patient reports as the primary source for their findings. Nursing, on the other hand, employs a systems-oriented structure that is sequential and focuses on the acceptance of patients' beliefs and values and finding ways that the healthcare environment can be organized to meet the corresponding patient needs.[16,17]

A second distinguishing feature of the traditions are the levels at which they take place. The PC conceptualizations of Medicine and Nursing focus on the micro- and meso-levels, while Nursing and Public Policy address the meso- and macro-levels of care. The micro-level of PC pertains to care within and adjacent to the patient-provider encounter, while the meso-level of PC constitutes the environmental conditions within

and adjacent to healthcare institutions organizing care. The macro-level consists of overarching factors like legislation, accreditation, payment, and workforce dynamics as it related to PC.

The third and fourth distinguishing features among the seminal PC traditions are how (i.e., methodological approach) and where (i.e., care setting) the patient data informing the different traditions were acquired. Stewart,[34] as well as Mead & Bower[148] from the Medicine tradition, utilize a more deductive approach informed by pre-existing theoretical literature and applied to outpatient medical encounters involving the patient and physician. Contrastingly, the Picker Principles[157] from Public Policy were created more inductively, building the model from a foundation built on interviews with patients and their families receiving care in 62 hospitals around the country about "what mattered" to them in their care.

A fifth distinguishing feature important to note is that outcomes connected or produced from PC and PCC are different among the seminal traditions. In particular, Nursing incorporates subjective, patient-reported outcomes into its conceptualization of PC, which are less prominent in the Medicine and Public Policy conceptualizations that focus more on objective to clinical indicators of "healthiness" like mortality, morbidity, hemoglobin A1c, and lipid profiles.[34,148,157,178]

A final distinguishing feature between the seminal traditions of PC is the language and terminology used. Unlike the Medicine and Public Policy traditions, Nursing intentionally substitutes "person" for "patient" in the "P" of "PC." Although the terms '*Person-Centeredness*' and '*Patient-Centeredness*' share a well-recognized commonality in humanistic psychology origins, a '*biopsychosocial perspective*,' and general

philosophies, proponents of the former make several arguments that make it distinguishable from the latter. First, "person" better anchors the health problem, encounter and relationships around the identity of a "whole" person than does "patient, " which reduces the individual to someone receiving care for a given disease or in a specialty area with its own goals and belief systems.[19] Additionally, "person" implies a more co-equal partnership with the caregiver compared to "patient," which carries historical connotations of parentalism and a power imbalance in favor of the provider as the expert in all matters of health. However, many voices in the PC literature see the terms as nothing more than a semantic difference given that all prominent PC models directly outline the necessity of a holistic, biopsychosocial approach, and a co-equal partnership between the patients and caregivers.[45] In fact, some point out that use of one term or the other is more an indicator of one's country of origin or practice setting than reflecting any philosophical difference. "Patient-Centered" is predominantly used in North America and hospital settings while "Person-Centered" is more common in Europe and outpatient settings.[16,20,115,203,204]

The debate surrounding the use of 'Person-Centered Care' and 'Patient-Centered Care' might be seen as the epitome of numerous arguments over concepts and terminology in the research space about the aim of healthcare, how it should look when practiced, what should reasonably be required of it, and more.[20] A consensus about who gets to provide these answers is also important because they will be influenced by different histories, values, underlying assumptions, aptitudes, shortcomings, roles, and needs. The pursuit of these answers is not unreasonable and the debate has the potential to move the field forward by putting the patient at the center of their care, but there also

concerns it increases the complexity in an already confusing space for researchers and practitioners uninitiated with the nuances of the literature as well as the likelihood that PC terminology can be deployed in undisciplined, naïve, and potentially self-serving ways in healthcare practice, research, and policy.[5,9,11–15,20] It is the opinion of this author that these risks are the impetus for more contemporary PC research concentrating on finding cross-links of different conceptualizations and contexts.

Contemporary PC Conceptualizations (2010-Present)

The seminal contributions to PC's interpretation, development, and implementation have sparked a thriving research community that spans multiple domains including disease states, populations, care settings, professions, and models of care. Table 4 shows an abbreviated sample of this diversity drawn from a comprehensive review of the PC research space conducted in 2015,[20] organized by general research domains and the corresponding focus of PC related concepts and PCC practices. These focal points of PC research can be viewed as areas of strength but they also reveal gaps (i.e., a heavily researched PC element in one contextual domain that has not even been explored in another). For example, the outcomes of family and patient-engagement interventions are well studied in the pediatric population but less so for the geriatric population.[20] This is another indicator of fragmentation within the PC research space, more comparative evaluations of existing measures and evaluations being needed rather than the development of new ones. This includes more emphasis on assessing existing studies in terms of quality (i.e., theory-based, rigorous psychometric assessment, adequate empirical support), fidelity (i.e., transparent, descriptive, and standardized

measurements or interventions), and design (i.e., assumptions, measured concepts, contextual factors).[20,205]

Table 4. Examples of PC & PCC Research Diversity & Fragmentation by Domains[20]

Domains	Examples
Diseases	Oncology: Patient-Provider Communication,[206] Patient empowerment,[207] Shared Decision Making[208]
	Infertility: Shared Decision Making[209,210]
	Mental Health: Self-Management,[205] Self-efficacy[211,212], Co-production[213,214]
	Diabetes: Self management[20]
	Dementia: Personhood[204,215]
Care Setting	Inpatient: Patient Engagement[216]
	Emergency: Shared Decision Making[217]
	Residential & Nursing Home: Shared Decision Making[203,218,219]
	Outpatient: Personalized Care Planning[220,221]
Population	Pediatrics: Family & Patient Engagement[222]
	Geriatrics: Self-care[20]
	Caregivers: Job Satisfaction[223]
Profession/ Discipline	Rehabilitation: Personal Goal Setting[20,224]
	Medicine: Patient-Engagement,[217] Professional Satisfaction,[2] Shared Decision Making[225]
	Nursing: Geriatrics,[226] Self-Management[227]
	Occupational Therapy: Shared Goal Setting[228,229]
Models of Care	Shared Decision Making: Oncology,[208] Infertility,[210] Nursing Home,[218] Primary Care[230]
	Decision Aids: Populations with lower health literacy[231]
	Communication and 'shared mind': Oncology[232]
	Electronic health records: Team-based Care[233]
	Web-based support: Primary Care[234]
	IT support self-management of chronic illness: Self-management[235]
	Motivational Interviewing: Addiction[28]

Another challenge of fragmentation in the literature is how to select and measure outcomes for the evaluation of PCC interventions. Robinson highlights how different values and assumptions that underlie perspectives from public policy, economics, clinical, and individual patients lead to different answers to this question.[15] For example,

a public policy perspective evaluates PC from a macro perspective (i.e., legislation, regulation, accreditation)[11] in accordance with social values and the public good, while an economic lens sees the patient as a healthcare consumer within a marketplace of services (e.g., health payers, etc.). Similarly, a clinical outlook organizes and measures care outcomes primarily from a pathophysiological perspective (e.g., cardiovascular events, etc.) while the patient themselves are most concerned with their personal experience, goals, and impact on their everyday life (e.g., quality of life, patient experience).

Robinson's work demonstrates that the understandings, assumptions, and expectations of what PC is as well as can and should achieve is influenced by not only the nature of a disease, the service being provided, or the expertise of the caregiver, but also by aspects beyond a traditional health focus like employment, mobility, housing, and even personal-identity.[20,236,237] However, a major international review of the PC literature found that the concerns of the patient are underrepresented in healthcare study endpoints in favor of the clinical outcomes and economic considerations the modern healthcare system services and payment are organized around (i.e., medical records containing discrete biomedical categories for tracking services and payment).[220]

The result is inherent tensions in the responsibilities healthcare providers have to a number of healthcare stakeholders with different interests. That being said, non-clinical outcomes like patient satisfaction and experience have recently been growing in importance as demonstrated by their use in some healthcare payment structures (e.g., CMS Value-based purchasing) as well as some healthcare institutions publicly reporting this information.

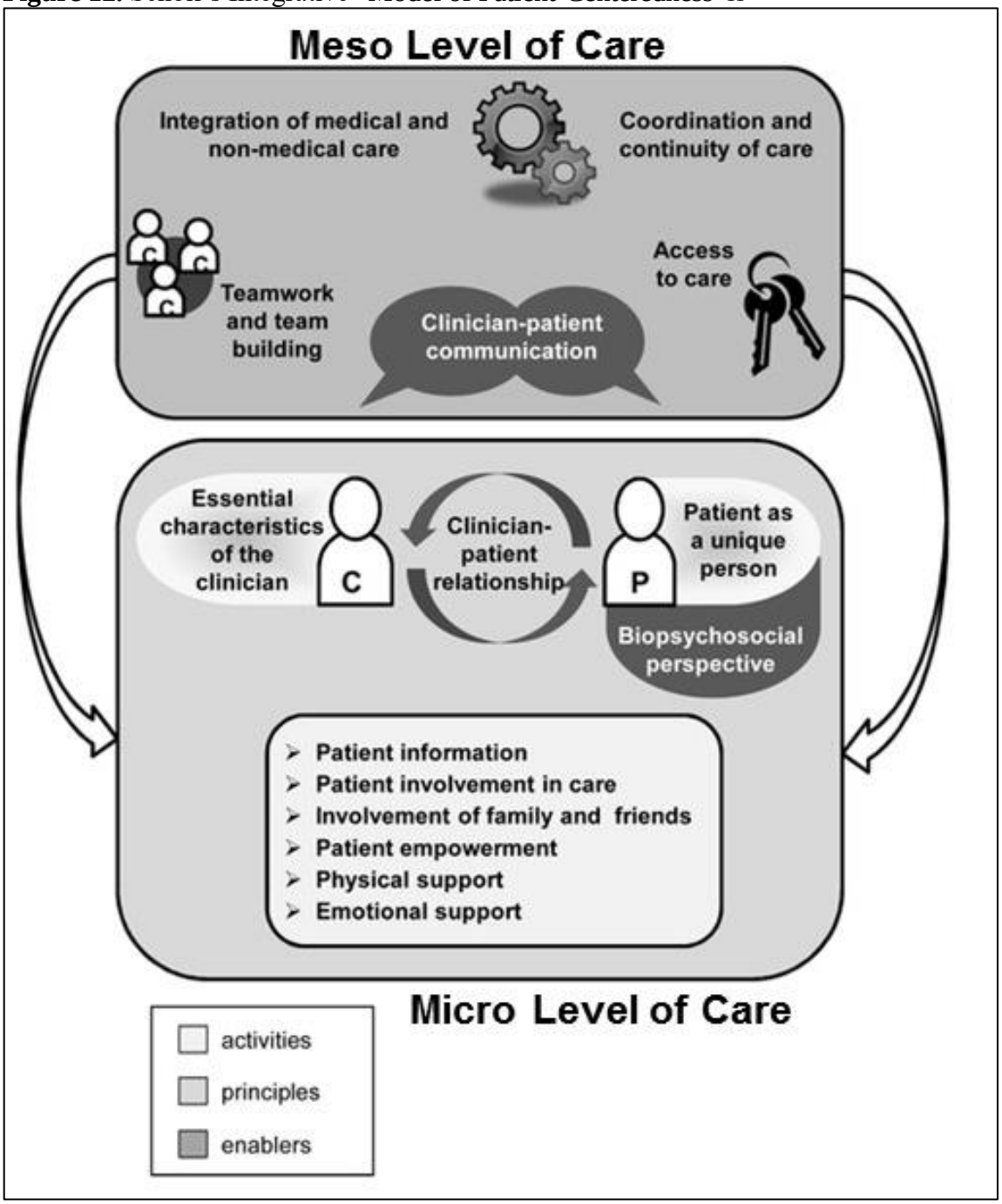
The variation in what measurements (e.g., patient-reported, expert-observed), interventions (e.g., '*Shared Decision Making,' 'Self-Management')*, and outcomes (e.g., clinical, non-clinical) used to evaluate PCC likely explain mixed findings in the literature about its effectiveness.[20] For example, PCC interventions that utilize '*Shared Decision Making'* can illuminate how different cancer treatment options impact daily routines differently leading to optimal adherence or cost-effectiveness. However, a '*Shared Decision Making'* intervention for a mental health patient may be less patient-centered given that self-management techniques are more associated with improvement in self-efficacy or sobriety. Likewise, outpatient settings may be more attuned to interventions and outcomes pertaining to quality of life, while inpatient settings are more focused on quality of care indicators or re-hospitalizations.

Suffice to say the fragmentation of the PC research and practice presents significant barriers to its progression, particularly given that modern healthcare practice takes often within integrated multi-disciplinary teams managing patients with multiple co-morbidities. Contemporary PC research appears to have arrived at two understandings to address the associated challenges described in the preceding paragraphs. The first is an acknowledgment that the PC construct is subjective in nature, multidimensional in composition, and contains valid differences across contexts.[20] The second is the need for cross-linking PC conceptualizations, PCC measurements, and PCC interventions from different areas of the literature to identify the construct's common connections and core elements. This is essential for informing the sufficient development, implementation, and evaluation of PC and PCC practices.[11,16,203,204,238–241] The following sections summarize the two most influential contemporary models that represent these understandings.

Scholl's "Integrative Model of Patient-Centeredness"

Scholl's "Integrative Model of Patient-Centeredness" (MPC) is displayed in Figure 12 and represents perhaps the most comprehensive and influential conceptualization of PC to date.[11,20] The MPC pinpoints 15 interrelated PC concepts predominately drawn from the Medical and health Public Policy literature and categorizes them into '*principles*,' '*enablers*,' or '*activities*,' at different levels of care (i.e., micro-, meso-, macro-).[11] '*Principles*' are "fundamental propositions which lay the foundations for a system of belief or behavior or for a chain of reasoning." '*Enablers*' are "elements which foster PC, helpful in implementing PCC and are present mostly meso-level (i.e., healthcare institutions)." '*Activities*' are defined as "specific PCC behaviors, that implement the principles and take place primarily on the micro-level (i.e., within and adjacent to patient-provider encounter). Of the 15 concepts in the MPC, none pertain to the macro level of care (i.e., legislation, regulation, payment, etc.) but Scholl still identifies several macro factors like reimbursement policies[242] and practice specialization[243] as potential barriers to PCC.

Figure 12. Scholl's Integrative "Model of Patient-Centeredness"[11]



A list, description, and lineage of the MPC's 15 sub-concepts along with an evaluation of each sub-concept's validity in terms of (a) relevance and (b) conceptual clarity to PC across patient care settings are shown in Table 5. Scholl's evaluation for

validity using a Delphi method with an expert panel consisting of 49% researchers, 41% patients, and 10% clinicians/quality managers hailing from varying countries of residence and professional backgrounds. This panel rated eleven sub-concepts were classified as valid. The concepts with the top five validity scores are bolded and numbered, with smaller numbers indicating a higher validity score. The remaining four dimensions, which are crossed out in the table below, were found to be valid in relevance to PC but lacking in conceptual clarity. Of these four dimensions, '*Integration of care*' and '*Care access'* were notable by different ratings from separate subgroups. For example, *'Integration of care'* received significantly higher ratings for clarity among patients and their representatives than by researchers and clinicians.

Table 5. Categories, Dimensions, Descriptions, & Linage of Scholl's Integrative "Model of Patient-Centeredness"[244]

CATEGORY	DIMENSION	DESCRIPTION	LINEAGE
Principles	**1. Patient as a unique person**	Recognition of each patient's uniqueness (individual needs, preferences, values, feelings, beliefs, concerns and ideas, and expectations)	Stewart, Mead&Bower, Michie, Krupat, Epstein
	Essential clinician characteristics	A set of attitudes toward the patient (e.g., empathy, respect, honestly) and oneself (self-reflectiveness) as well as medical competency	Mead & Bower
	Clinician-patient relationship	A partnership with the patient that is characterized by trust and caring	Stewart, Mead& Bower
	Biopsychosocial perspective	Recognition of the patient as a whole person in his or her biological, psychological, and social context	Stewart, Mead&Bower, Picker, Howie, Epstein
Enablers	**4. Clinician-patient communication**	A set of verbal and nonverbal communication skills	Stewart, Mead&Bower, Picker, Little, Epstein, Krupat

	Integration of care	Recognition and integration of non-medical aspects of care (e.g., patient support services) into healthcare services.	Picker
	Teamwork & teambuilding	Recognition of the importance and of effective teams characterized by a set of qualities (e.g., respect, trust, shared responsibilities, values, and visions) and facilitation of the development of such teams	Picker
	Care access	Facilitation of timely access to healthcare that is tailored to the patient (e.g., decentralized services)	Picker
	Care coordination & continuity	Facilitation of healthcare that is well-coordinated (e.g., regarding follow-up arrangements) and allows continuity (e.g., well-working transition of care inpatient to outpatient)	Picker
Activities	**2. Patient involvement in care**	Active involvement of and collaboration with the patient regarding decisions related to the patient's health while taking into account the patient's preference for involvement	Stewart, Mead&Bower, Howie, Epstein, Michie, Little
	3. Patient Information	Provision of tailored information while taking into account the patient information needs and preferences	Picker, Epstein, Little, Krupat
	5. Patient empowerment	Recognition and active support of the patient's ability and responsibility to self-manage his or her disease	Stewart, Howie, Epstein, Michie
	Family & friend involvement	Active involvement of and support for the patient's relatives and friends to the degree that the patient prefers	Picker
	Physical support	A set of behaviors that ensures physical support for the patient (e.g., pain management, assistance with daily living needs)	Picker
	Emotional support	Recognition of the patient's emotional state and a set of behaviors that ensures emotional support for the patient.	Picker, Krupat, Epstein

# = Rank of perceived validity of by expert Delphi panel among PC concepts in the model.
Strikethrough = found by expert Delphi panel to be valid in relevance to PC, but lacking conceptual clarity
Underlined = Primary lineage of PC concept

In addition to Scholl's development and evaluation of a PC model integrating concepts from different seminal domains, he also put forth criteria the following criteria for assessing instruments purporting to measure the construct: (a) utilization of theory,

(b) transparent methods (c) quality psychometric evaluation, and (4) justifiable operationalizations. This contribution addresses previously mentioned challenges to PC research that compromise confidence in study results and limit the transferability of models across contexts.[245] This method has been used for PCC measures related to patient involvement in care,[246] patient empowerment,[247] physician-patient communication,[248] clinician-patient relationships,[249] and more. It has also been used to assess the effectiveness of interventions such as '*Shared Decision Making'* in the care of patients with cancer,[250] orthopedic physiotherapy,[251] and other conditions.

Scholl's work represents important advancements for understanding and evaluating evidence in the PC literature, but has received criticism for poor scalability and ease of use by practitioners.[204] A contemporary alternative that better addresses this challenge is presented in the next section.

The "Gothenburg Model of Person-Centred Care" (GMPC)

The GMPC comes from a group of clinical and non-clinical academics from the Swedish University of Gothenburg Centre for Person-Centred Care. This model is informed by the same core components found in other contemporary PC models, but is distinctive in its focus on the day to day implementation of PC built on three simple routines of a partnership between patients and providers:

1. Initiate partnership – eliciting the patient narrative (i.e., sick person's personal account of their illness, symptoms, and their impact on life) that encapsulates the individual's suffering in the context of their everyday lifeworld, in contrast to biomedical narratives that mirror the process of disease diagnosis and treatment.

2. Integrate partnership – using shared decision making, so that healthcare professionals and patients, as well as their family and friends, act in concert to mutually agreed upon goals.

3. Safeguard partnership – recording the narrative through preferences and values of each patient, while also including patients in their care and treatment decision making.

Another distinctive characteristic of the GMPC model is that the three routines are innately tailored to the capabilities of each person undergoing care and inform alterations to the care environment and practices. In the eyes of the GMPC's creators, PC is not so much about what you do as it is about how you are. Thus, similar to the PCPF midrange theory, the GMPC model also substitutes 'person' for the word 'patient' in PC and PCC, so as not to subtly reduce individuals receiving care to agents receiving medical services.

The nature of this PC model also allows healthcare professionals to mold the three routines in ways that best serve patients in their setting. This user-friendly approach has yielded promising preliminary results having been adopted by healthcare practices in countries such as the UK, Turkey, and Sweden.[20] Furthermore, this model is easily implemented without any compromise to the assessment's rigor; the GMPC produced positive results for traditional clinical endpoints and non-clinical indicators in several randomized controlled trials with patients diagnosed with hip fractures,[252] heart failure,[253] acute coronary syndrome,[254] and more.[255] Furthermore, these investigations have not only focused on evaluating the relationships between interventions and outcomes, but also to explore the challenges and conditions for providing PC in care across these contexts so it can be better implemented by healthcare systems and practitioners.[256]

Summary of the Contemporary PC Research Space

To date, the totality of the PC literature demonstrates a significant proof of concept, a broad research agenda, and high regard from key stakeholders. The construct still lacks a universal definition and conceptualization, which remains its greatest barrier to advancing PC research, PCC best practices, and professional education.[11,20,115,240] Although differences on the nomenclature, priority, importance, and interpretation of different PC concepts continue to exist, all prominent PC interpretations discussed in this review possess share several common elements, including:[11,19,257,258]

- The patient takes precedence over all other values, beliefs, concerns, and approaches that distract or contradict ethical and humanist care.
- Mutual respect and dignity between patient and provider
- The patient as a unique and individual person who is the expert of their own social worlds[2]
- Patient engagement
- Patient empowerment
- Coordinated and comprehensive care
- Interdependence of health and well-being

Furthermore, all contributors to the PC literature agree on what PC is not:[20,115,126,204]

- Medical parentalism
- A reductionist medical approach
- Objectification of the individual and human distance between professional and patient

- An inflexible and/or fragmented care modeled to the immediate convenience of the service provider
- Focused on illness and disease at the neglect of the whole person as a spiritual, bio-psycho-social entity).

Using these commonalities as a starting point, a multi-disciplinary review of PC conducted in December 2015 identifies three general PC perspectives or emphases of the construct: (1) an overarching conceptualization of the PC construct, (2) a philosophy of personhood, and (3) partnership. From these three general perspectives, the first and second perspectives align best with Objective 1 of this doctoral thesis and the third perspective aligns best with Objective 2 of the doctoral thesis. Table 6 describes all three of these perspectives in-depth.

Table 6. Definitions & examples of the Three General Contemporary PC Perspectives[20]

PERSPECTIVES	DEFINITION	EXAMPLE
An overarching conceptualization of the PC construct	The PC construct is a tool for capturing a constellation of distinct concepts and terms connected by shared ethos, structures, processes, outcomes, and communities.[257] Even when these concepts and terms extend beyond a traditional healthcare scope (e.g., lifestyles, behavior changes, housing, financial support, etc.) this holistic approach to PC perceives them to be more alike than different. This integrative approach recognizes a greater value in what can be understood, enhanced, and clarified for healthcare teams by bundling PC sub-concepts than by separating them.[11,16]	Scholl's MPC[11]
Personhood and anti-reductionism	An existential and philosophical approach to healthcare where professionals partner with patients in their care leading to better engagement,	McCormack & McCance's PCPF[181]

	fulfillment, goal alignment, and need fulfillment for patients.[115,259]	
Partnership, mutualism, co-production, value co-creation	An understanding that the inclusion and concordance of the essential expertise of both the patient and healthcare professional results in an optimal experience and outcome for all stakeholders.	GMPC[255]

Abbreviations: PC=Patient-Centeredness; PCPF=Person-Centred Practice Framework; MPC= Integrative Model of Patient-Centeredness; GMPC=Gothenburg Model of Person-Centred Care.

Despite the advancements in establishing a consensus within the literature, it is also important to recognize a potential hazard to this progression. First, better PC conceptualizations and PCC measurements enable improved performance tracking, training, and evidence gathering for the construct but it can also come at the cost of perverse incentives for system gaming when they are applied to high stakes situations. This potential situation is at odds with the core ethos behind PC and must be guarded against.[20] Thus, participants in this research and practice space must strive to link their methodology and findings in a prudent and humble manner to the overarching PC conversation that avoids pitfalls such as adding avoidable ambiguity.[257] This is particularly germane to contributors from the pharmacist discipline given its young and limited activity in the literature.

For this thesis, Figure 13 will serve as an approximate conceptual alignment among the theoretical models of PC outlined in this literature review. It is important to note that the GMPC is absent from the figure, primarily because it focuses on the day-to-day routines for implementing of PC that represents a distinct paradigm not conducive to alignment with other conceptual theories. However, this does not in any way diminish or discount the GMPC's relevance and importance to the PC literature.

Figure 13. Spatial Alignment for Seminal PC Concepts in Medicine, Nursing, & Health Public Policy with Scholl's Integrative "Model of Patient-Centeredness" (MPC)

<table>
<tr><th rowspan="2">MEDICINE</th><th rowspan="2">NURSING</th><th rowspan="2">PUBLIC POLICY</th><th colspan="2">SCHOLL'S MPC</th></tr>
<tr><th>Activities</th><th>Principles</th></tr>
<tr><td>Therapeutic Alliance</td><td>Authentic Engagement</td><td rowspan="3">Respect for Patient Preferences, Needs, & Values</td><td>Pt Empowerment</td><td rowspan="2">Clinician-Patient Relationship</td></tr>
<tr><td rowspan="2">Shared Power, Responsibility, & Common Ground</td><td>Patient's Care Involvement</td><td rowspan="2">Patient's Care Involvement</td></tr>
<tr><td>Shared Decision Making</td></tr>
<tr><td>Patient as Unique Person</td><td>Work with Pt's Beliefs & Values</td><td>Patient Information</td><td>Patient as Unique Person</td></tr>
<tr><td rowspan="3">Biopsychosocial Perspective</td><td>Sympathetically Present</td><td rowspan="2">Emotional Support</td><td rowspan="2">Emotional Support</td><td rowspan="3">Biopsychosocial Perspective</td></tr>
<tr><td rowspan="2">Provide Holistic Care</td></tr>
<tr><td>Physical Support</td><td>Physical Support</td></tr>
<tr><td rowspan="6">Provider as Person</td><td>Professional Competency</td><td rowspan="6">////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// //////////////////////</td><td rowspan="6">////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// //////////////////////</td><td rowspan="6">Essential Characteristics of the Clinician</td></tr>
<tr><td>Job Commitment</td></tr>
<tr><td>Interpersonal Skills</td></tr>
<tr><td>Knowing Self</td></tr>
<tr><td>Clarity of Beliefs & Values</td></tr>
<tr><td>Family & Friend Involvement</td><td>Family & Friend Involvement</td></tr>
<tr><td>//////////////////////</td><td>//////////////////////</td><td>//////////////////////</td><td colspan="2">Enablers</td></tr>
<tr><td rowspan="3">Context & Time</td><td>Patient Wellbeing</td><td rowspan="3">Care Access</td><td colspan="2" rowspan="3">Care Access</td></tr>
<tr><td>Physical Environment</td></tr>
<tr><td>Care Experiences</td></tr>
<tr><td rowspan="3">Disease Prevention & Health Promotion</td><td rowspan="3">////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// //////////////////////</td><td>Information, Education, & Communication</td><td colspan="2" rowspan="2">Clinician-Patient Communication</td></tr>
<tr><td rowspan="2">Continuity & Transition</td></tr>
<tr><td rowspan="3">////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// //////////////////////</td><td colspan="2" rowspan="2">Care Coordination & Continuity</td></tr>
<tr><td>Appropriate Skill Mix</td><td rowspan="3">Care Coordination & Integration</td></tr>
<tr><td>Effective Staff Relationships</td><td colspan="2" rowspan="2">Teamwork & Team Building</td></tr>
<tr><td>Team Power Sharing</td></tr>
</table>

////////////////////// ////////////////////// //////////////////////	Organizational Systems Support		
////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// //////////////////////	Shared Decision-making Systems Innovation & Risk-taking Potential Healthful Culture		Integration of Medical & Non-medical Care
////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// //////////////////////	Workforce Developments Strategic Frameworks Strategic Leadership Health & Social Care Policy	////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// ////////////////////// //////////////////////	

Note: Cells with the multiple back-slash (////) characters signify that no concept from respective seminal traditions existed in the specified area.

The PC Literature Gap in Pharmacy

PC and PCC are formally recognized as an integral component of pharmacist care with patients.[22] However, the review of the construct within the pharmacist literature reveals a sizable gap in terms of breadth and depth. This review's extensive search protocol, consisting of 9 electronic databases and variations of 18 search terms, yielded only 61 unique sources. More than two-thirds (41) of these results lacked either sufficient depth and granularity (19) or an explicit connection to PC conceptualizations (21). Search results categorized as lacking sufficient depth or granularity included original research which classified PCC as any pharmacist service taking place within a PCMH,[36] a course in clinical, social or experiential pharmacy,[59] or failed to define the construct at all.[41,64,83,85,86] Search results labeled as lacking an explicit connection to PC conceptualizations were pharmacist-relevant publications on concepts consistent with PC like shared decision-making,[77,79–81] patient-focused care,[88,90] patient engagement,[97,100] and

patient self-management,[92,93,95] but not sufficiently linked to any conceptualization of the construct. This sample of the results indicates a lack of awareness about and understanding of PC and PCC both within and outside of the pharmacist literature.

Of the remaining 22 unique sources, only 10 indicated an awareness and understanding of the relationship between at least one PC conceptualization in Pharmacy and the overarching literature. This group contained only the following two PC approaches for pharmacists: (1) Cipolle, Strand, and Morley's Pharmaceutical Care Practice Model (PCPM)[33] and Kibicho & Owczarzak's Patient-Centered Pharmacy Services Model (PCPS).[43] The predominant focus of these two models are on the micro-level of PC (i.e., patient-pharmacist encounter) with modest recognition or depth on the meso- (i.e., level of healthcare systems) or macro-levels (e.g., overarching factors like legislation, accreditation, payment, and workforce dynamics). The following sections provide an overview of these models and their relationship to each other and the key PC conceptualizations from the broader healthcare environment.

PC in the Pharmaceutical Care Practice Model (PCPM)

Arguably the first and most influential PC-related contribution from Pharmacy comes from the combined works of Hepler, Cipolle, Strand, & Morley,[33,44] their protégé's Shoemaker & de Oliveira,[58] and most recently Wolters et al.[65] Their contributions have been applied to student pharmacist education,[62,73] shared decision making,[71,73] patient-self management programs,[91] and more. Cipolle, Strand, & Morley define PCC as "care that places the patient's needs as the focus of the clinician's work…maintains the patient as a holistic being…[and] a cornerstone of the philosophy of pharmaceutical care practice (p665)."[33] This definition and conceptualization of PCC appear to be influenced by

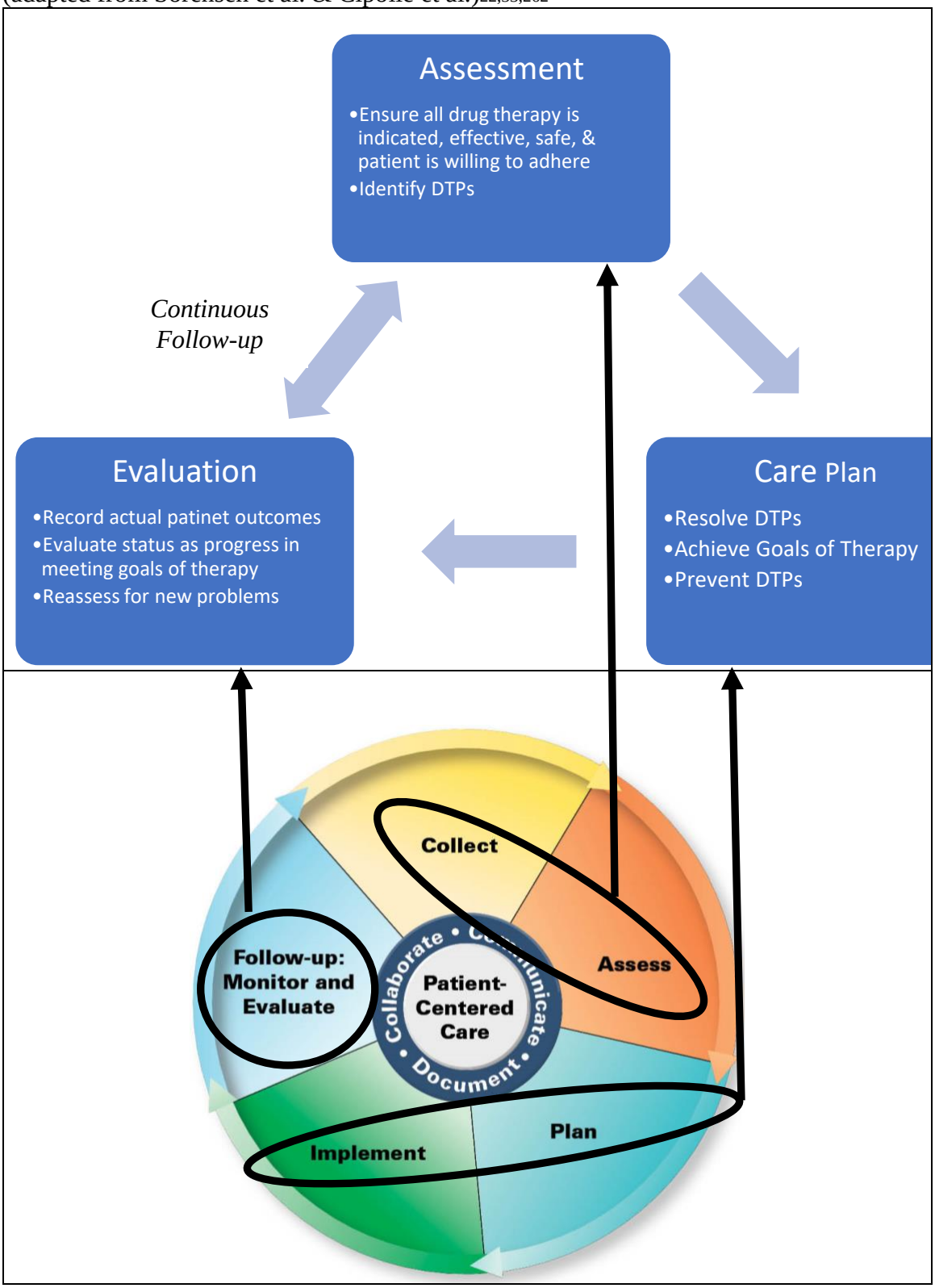
elements of PC found primarily in the medical literature, although one of their earliest works did state that additional value could be added by considering contributions raised in nursing theory.[260,261] Shoemaker & de Oliveira's contributions consist of an outline of strategies and techniques to ensure pharmacist PC. This foundation has recently been built on by Wolters et al. to create a process-oriented PC model with direct links to seminal conceptualizations in Medicine and health Public Policy. The following subsections will describe and relate these three contributions to each other and the overarching PC literature.

Cipolle, Strand, & Morley's Approach to PC

Cipolle, Strand, & Morley perceive PCC as a building block of the '*Philosophy of Pharmaceutical Care Practice*,' which is the "patient-centered practice in which the practitioner assumes responsibility for the patient's drug-related needs, is health accountable for this commitment,…[and] aims to achieve positive patient outcomes…by identifying, resolving, and preventing drug therapy problems" (p666).[33] They go on to state that the '*Philosophy of Pharmaceutical Care Practice'* is one of the three necessary components of patient-centered practice.

The second component is the '*Patient Care Process,'* which refers to "[a] the assessment of the patient, his or her medical problems, and drug therapies leading to drug therapy problem identification, [b] care plan development, and [c] follow-up evaluations" (p50).[33] These steps informed the development of the PPCP, which is outlined in Figure 14.

Figure 14. Connections between the "Pharmaceutical Care Patient Care Process" & the Joint Commission of Pharmacists' Practitioners "Pharmacist Patient Care Process" (adapted from Sorensen et al. & Cipolle et al.)[22,33,262]



Abbreviations: DTP=Drug Therapy Problems

The third and final component is the *'Practice Management System'* that refers to "all the support required to provide a service to patients in a proficient and productive manner," (p397-8) and includes the following four general elements.[33]

1. Clarity in the mission that defines the standards and expectations for the practice or service.
2. All physical, financial, and human resources needed to deliver and document the service.
3. Means and measurements for evaluating the service in terms of patient-specific experiences and service quality (e.g., practitioner's ability to manage the patient and practice).
4. Means to reward the practitioner and financially support the longevity of the practice (i.e., payment mechanisms), which represents the value of the service to the patient, payer, and society.

These elements show that the '*Practice Management System'* component of the PCPM recognizes the role of PCC on the meso- and micro-levels even if this role is not articulated in depth. Cipolle, Strand, and Morley also go on to say that *'Pharmaceutical Care'* encompasses longitudinal medication management services delivered by a specially trained pharmacist in collaboration with the patient and their care team to improve self-care, much in the same way that a physician practices medicine, a nurse practices nursing, etc.

There appear to be at least two direct links between Cipolle, Stand, and Morley's conceptualization of PC and the seminal works from the medical tradition as well as convergent similarities with other PC concepts that developed independently.[62]

The first of the direct links connect the Cipolle, Strand, & Morley's terminology of '*Drug Therapy Problems*'(DTPs) and Shoemaker & de Oliveira's '*Medication*

Experience'[263] from the Pharmacy literature to one of Stewart's six dimensions of PC (i.e., *'exploring patients' experience and expectations of disease'*).[34,72,127] The '*DTP'* concept comes from Cipolle, Strand, & Morley and is defined as "any undesirable event experienced by a patient that involves, or is suspected to involve, drug therapy and that interferes with achieving the desired goals of therapy and requires clinical judgment to resolve or prevent" (p659).[33] '*DTPs*' are conceptualized as seven different categories, or reasons why medication therapy should be adjusted to achieve patient-specific goals of therapy. The '*Medication Experience*' was further refined by Shoemaker & de Oliveira, who described it as "the sum of all the events a patient has in his or her lifetime that involve drug therapy…[including] the patient's personal experience with medications…[that] shapes his or her attitudes, beliefs, and preferences about drug therapy" (p110).[33] Cipolle, Strand, & Morley elaborate that the *'Medication Experience'* encompasses the medication-related factors impacting if and how patients take their medications such as attitudes (e.g., negative, positive), understandings (e.g., relevant indication, dose, frequency), expectations (e.g., signs of effectiveness), concerns (e.g., side effects), behaviors (e.g., adherence), and considerations (e.g., religious, cultural, etc.).

The relational aspects of a patient's '*Medication Experience*' and *'DTPs'* are depicted in Table 7.

Table 7. Connections between the Medication Experience & Drug Therapy Problems from the PCPM (adapted from Cipolle, Strand, & Morley)[33]

'MEDICATION EXPERIENCE'	***'DRUG THERAPY PROBLEMS'***
Patient understands how the medication works, why it is being used, and how to take it.	1. Additional drug therapy needed 2. Unnecessary drug therapy needs to be discontinued
Patient expectations/attitudes about medication and its effects	3. Ineffective drug therapy 4. The dosage is too low
Patient concerns about medication	5. Adverse drug reaction is experienced 6. The dosage is too high
Patient adherence behavior	7. Patient not able or willing to take the drug regimen as intended

Cipolle, Strand, and Morley's work on PCC goes on to connect how the patient's '*Medication Experience*' and '*DTPs*' relate to Stewart's PC concept of '*explore the patients' experience and expectation of disease and illness*' by essentially substituting the word "medications" for "disease and illness:" in the four sub-dimensions. This connection is shown and described in Table 8.

Table 8. Four Pharmaceutical Care Sub-dimensions of Stewart's First Aspect of PC: 'Explore the patients' experience & expectation of disease & illness' (adapted from Cipolle, Strand, & Morley)[33]

Sub-dimensions	Corresponding *'Medication Experience'*	Example
The patient's feelings about taking medication	Understandings, Expectations/Attitudes, Adherence	• Anxiety over what medication means • Reprieve from roles or responsibilities due to taking the medication • Anger about why they need to take medication • Guilt about how managing their medications impact others in their life
The patient's ideas/meaning about their medication	Understandings, Concerns, Adherence	• Symbol of a permanent loss of health • A chance to gain understanding • A conduit to find support or dependency • Part of a normal progression in life • A consequence of past choices

The patient's perceived impact of taking medication on their daily function	Understandings, Concerns, Adherence	• An impediment or change to their day to day life • Modification of relationship dynamics in their life
The patient's expectations of what should be done by the clinician	Expectations	• Prescription drug • An understanding of the medication • Clearly answer questions • Listen • Give advice • Work together to create a plan

It is important to point out that Cipolle, Strand, and Morley are not saying that pharmacists practicing PCC should organize their thinking, decisions, and actions around their knowledge of the medication; they clearly articulate the patient should always come first, and that patients should drive the encounter. Instead, this emphasis on medications reflects a separate, important, and often overlooked component of the patient experiences and expectations that fits well with the expertise and role of the pharmacist on the healthcare team.

The second direct link between the PCPM and the overarching literature is Cipolle, Strand, and Morley's '*therapeutic relationship*' and Mead & Bowers' *'therapeutic alliance.'*[33] The '*therapeutic relationship*' is defined as "a partnership or alliance between the practitioner and the patient formed for the purpose of optimizing the patient's medication experience" (p117). This concept is certainly related to, if not directly inspired by Mead & Bower's PC concept of the '*therapeutic alliance,'* which is defined as "developing common therapeutic goals and enhancing the personal bond between doctor and patient." Both the *'therapeutic relationship'* and *'therapeutic alliance'* incorporate shared goals between the patient and clinician as well as a bond built on essential key elements (i.e., trust, respect, empathy, commitment, etc.). A main distinction between the concepts is that the '*therapeutic relationship'* specifically

identifies "optimizing the *Medication Experience*" as the "common therapeutic goals" referenced in the *'Therapeutic Alliance.'* Additionally, the *'Therapeutic Relationship'* contains elements like patient responsibilities (e.g., asking questions when they arise, participating, etc.) and roles (e.g., decision-maker, teacher, the primary source of information, etc.), captured in Mead & Bower's separate concept of *'Shared Power and Responsibility.'* It is important to note that direct references to patient responsibilities and collaborative roles within the PCPM's '*Therapeutic Relationship'* was not emphasized in early work on the PCPM. In fact, this lack of emphasis is what differentiated the PCPM from Chewning and Sleath's '*client-centered model*' for medication management within the Pharmacy literature, although this gap no longer appears to exist.[54,60,68] The contemporary iteration of the PCPM makes active patient engagement a patient responsibility. This contrasts with the PC models put forth by Mead & Bower,[148] as well as Stewart[34] for that matter, which more directly acknowledge a patient's preference for more passive and parentalistic approaches to care by the clinician.

Beyond these two links, there remain other aspects of the PCPM perspective of PC that share similar features with the construct's other seminal conceptualizations but appear to have developed independently. For example, Cipolle, Strand, and Morley frame many of the essential characteristics and responsibilities of the clinician (e.g., '*professional competency*,' advocating for the patient's needs, putting the patient's needs above your own) as patient rights. This framing and language align more with the PC approach found in Nursing (e.g., McCormack & McCance's patients' right to self-determination, etc.) than Medicine and health Public Policy. The PCPM conceptualization of PC also appears to align with the relevant PC principles of the

PCMH, particularly its aspects of a personal patient-practitioner relationship as well as care coordination and integration through a team-based and whole-person approach.[33,35,166]

A distinguishing feature of the PCPM approach is the place, meaning, and significance that '*Patient-Centered Adherence*' has in care provided by pharmacists with patients. Cipolle, Strand, and Morley use the term '*Patient-Centered Adherence*' and outline the following four qualifying conditions that must be satisfied before evaluating how well patients take medications as prescribed.

1. Pharmacist develops an individualized care plan with the patient, which ensures medications are indicated, effective, safe, and convenient in accordance with a patient's medication experience.

2. Patient is encouraged and empowered to actively engage in developing goals, therapeutic decisions, and track information which results in greater motivation and patient feelings of control.

3. Pharmacist follows a systematic, comprehensive, and consistent process focused around eliciting a patient narrative that reveals their '*medication experience,'* and developing a meaningful relationship with the patient so high-quality care and services can be developed.

4. Pharmacist adapts their care behaviors conducive to patient's needs, ability to understand, and adopting health-related behaviors.

'*Patient-Centered Adherence'* is distinctive from the more traditional approach to medication adherence or compliance, which focuses almost exclusively on whether a patient takes their medications as prescribed without consideration for whether it meets the patient's needs, preferences, and values. It also implies that both pharmacists and patients have a responsibility in how well patients take their medications as prescribed.

Cipolle, Strand, and Morley go on to state that *'Patient-Centered Adherence'* can be used as a process outcome to test whether or not a pharmacist delivers PCC, stating that 80% adherence is obtainable when pharmacist-delivered PCC has occurred.

Cipolle, Strand, and Morley, as well as Shoemaker & de Oliveira, argue that thinking about medication behaviors in this way removes a misnomer that poor medication adherence by patients is deviant behavior and recognizes that patients have rational reasons consistent with their values, beliefs, and understandings for not being adherent as defined from a provider and claims-based dominated perspective. This framing sees patients as active agents within their life and health, rather than passive recipients that should ethically comply with medical recommendations. Furthermore, it follows that adherence is influenced by the pharmacist providing care with patients that is consistent with PC and therefore attuned to the biopsychosocial and economic factors that impact adherence. This approach again is more reminiscent of the emphasis on patient agency found in both McCormack & McCance's PCPF[181] midrange theory and GMPC,[255] than it is of the models from Medicine and Nursing.

Another insight derived from a logical progression of the PCPM approach is that PCC cannot have occurred if patients do not adhere to their medications. In this way, *'Patient-Centered Adherence'* is a direct process outcome of PCC, which is different from how adherence is written about in the overarching PC literature. For example, Rathert's PC conceptualization from the health Public Policy literature identifies adherence as "mediator," or a factor that can explain the achievement of outcomes (i.e., patient satisfaction, clinical outcomes, and organizational outcomes), but does not determine it by its presence or absence.

Shoemaker & de Oliveira's PC through 'Openness'

If Cipolle, Strand, and Morley established conceptual links connecting PCPM to the overarching PC literature, then Shoemaker & de Oliveira have outlined operational strategies and techniques for pharmacists to achieve PC. Their approach begins for pharmacists eliciting a '*patient narrative'* about their experiences and expectations of their disease, illness, and medications by orienting their *'natural attitude'* towards the concept of '*openness.*'

For Shoemaker & de Oliveira, *'openness'* in the patient care context is defined as the pharmacist "tolerat[ing] the experience of not knowing everything or not having the definitive answer to the patient's situation",…[as well as] "opening one's self to new views and new possibilities and try[ing] to dispose of, or at least recognize one's prejudices, biases, preunderstandings, assumptions, and values (i.e., '*natural attitude')*." The pharmacist's '*natural attitude*,' is the "way [pharmacists] go about their everyday lives…[using] their common sense" developed from training in pharmacotherapy, pharmacology, etc. to navigate and function in their profession, but it sometimes interferes with optimal patient care.[58] By doing recognizing or disposing of these, pharmacists can be receptive to understanding the patient's life situation (e.g., social support, health beliefs, etc.) and making themselves accessible to the patient in terms of time and information (i.e., refraining from information dumping).[55] This enables pharmacists to elicit a '*patient narrative*,' which is the story of how patients "make sense of the events associated with their illness [including medications], their interactions with the healthcare system, and how all this affected them and their relationships" (p61). These stories provide the necessary keys for PC provided by pharmacists with patients

and unlock the outcome of patient adherence to their medications. It should be noted the similarities between Shoemaker & de Oliveira's *'patient narrative'* and McCormack & McCance's *'therapeutic narrative.'*

To Shoemaker & de Oliveira, providing care in this way means that pharmacists must orient their professional identity to that of an educator responsible for giving holistic care (i.e., incorporating all objective and subjective facets of a person beyond just the clinical) with the patient rather than a service-provider of product-oriented services like dispensing, information, and advising for the patient.

The duo identifies six strategies, split into two groups of three that pharmacists can use to practice *'openness,'* unlock *'patient narratives,'* and achieve PC. The first group of three (i.e., listen, acknowledge, and wonder) apply to encounters when the pharmacist is interacting with the patient, while the latter group of three (i.e., recognize, question, and reflect) are pertinent for communicating with other colleagues or for self-reflection. These strategies can be found in Table 9, along with objectives and techniques associated with their use.

Table 9. Strategies for 'Openness' in Pharmacist Care Encounters with Patients (adapted from de Oliveira & Shoemaker)[58]

STRATEGIES	OBJECTIVES	TECHNIQUES FOR USE
For pharmacists to use in patient encounters		
1. Listen	• Pay attention to your patient • Listen for content & emotions • Hear your patient's story	• Be quiet & silent • Concentrate • Have few distractions present • Focus on what he/she is saying • Listen for objective & subjective information • Listen for how your patient's disease & medications seem to affect him/her • Get to the patient's narrative

2. Acknowledge	• See each patient as a unique individual • Recognize & accept this patient for who he/she is • Take note of your patient's experience & life situation	• Allow the patient to present themselves • Note five things unique to this individual • Note five things about your patient's experience & life situation that may affect his/her care
3. Wonder	• Be in awe – in general • Be unguarded • Be curious about your patient • See everything as new, like a child • Marvel at the possibilities	• Do not judge • Allow what the patient states to be true • Wonder about what might be occurring with your patient & his/her medications • Could what is happening with your patient's medication be possible? Or real for them? • What must it be like for your patient?
For pharmacists to use with himself/herself		
1. Recognize	• Recognize the PNA • Recognize your own values, preunderstandings, biases & judgments	• Am I focusing on the medication? • Am I missing the patient? • Am I only using pharmacology or pharmacotherapy to interpret this patient's story? • Am I reacting negatively to something the patient said or did? • Do I have a bias about the people in this situation?
2. Question	• Question the PNA • Question your values, preunderstandings biases, & judgments • Question the impact of the PNA on patient care	• Is the PNA affecting the way I treat the patient? • Is the PNA negatively affecting the care I provide? • Are my biases & judgments entering into my interactions?
3. Reflect	• Ponder about what happened in your patient encounter • Consider what you could have done to provide better care • Plan what you will do differently next time	• What happened during the encounter? • What could I have done differently? • What will I do next time? • What did I learn? • Should I share or get feedback from a colleague?

Abbreviation used: PNA= pharmacist's natural attitude

A more recent publication by Naughton[56] built on Shoemaker & de Oliveira's ideas and approach by combining them with the seminal PC works of Epstein and Krupat to develop a list of three best practices for patient-centered communication in pharmacy practice: (1) Openness, (2) Active Listening, & (3) Speaking Plainly. The definitions and content contained within these recommendations have already been presented under the

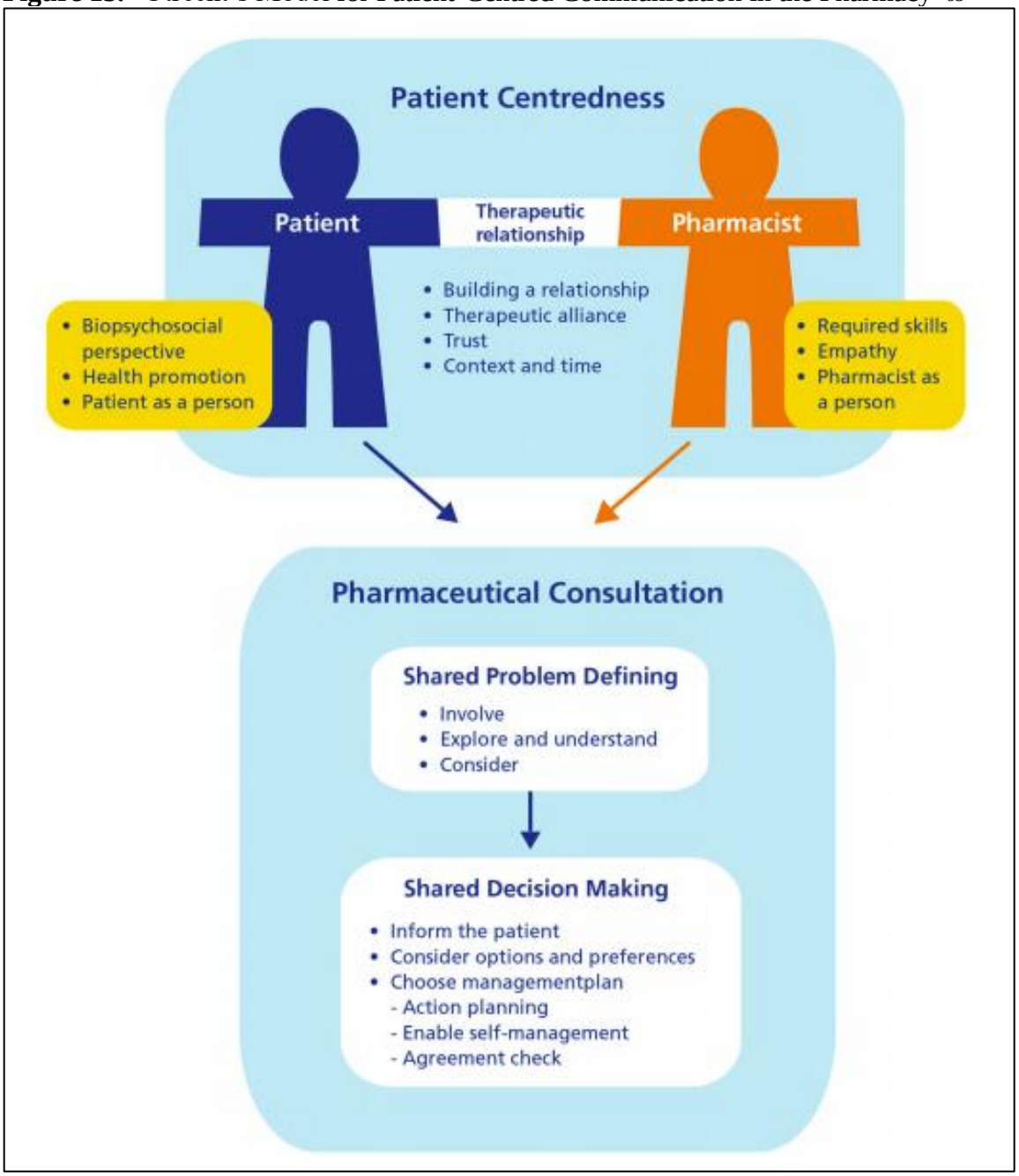
authors Naughton's work but were referenced here for the sake of completeness. The contributions of Shoemaker & de Oliveira, as well as Naughton, are similar to the GMPC approach PC in their focus on simple techniques and strategies easily adoptable and scalable by pharmacists practicing on a daily basis. This contrasts with the more comprehensive approach to conceptualizing the PC construct introduced in the next subsection, which is more comparable to Scholl's MPC.

Utrecht's Model for Patient-Centred Communication in the Pharmacy (UMPA)

The UMPA is created by Wolters et al.[65] and can be described as a middle-range theory that extends and deepens PC from Cipolle, Strand, and Morley's PCPM. The model draws almost exclusively from the medical tradition, with no evidence of influence or elements from the traditions of Public Policy (e.g., "mediators," "moderators") and Nursing (e.g., necessary or sufficient conditions for progressing through the model). Additionally, the methodology utilized to generate the UMPA does not appear to have been developed using any patient-sourced data and relied solely upon a review of the literature.

The UMPA is organized into two hierarchical categories, as shown in Figure 15. The upper category of "Patient-Centredness" is theoretical in nature and consists of 10 concepts associated with the "Patient," "Pharmacist," and the '*Therapeutic Relationship*' that ties the former two together.

Figure 15. "Utrecht's Model for Patient-Centred Communication in the Pharmacy"[65]



Seven of these ten theoretical concepts can be directly traced to concepts from Stewart[34] (i.e., '*health promotion,' 'building a relationship,' and 'context & time'*) and Mead & Bower[148] (i.e., '*biopsychosocial perspective,' 'patient as unique person,'* pharmacist/*'doctor as person,' & 'therapeutic alliance'*). The remaining three concepts

(i.e., *'trust,' 'required skills,' and 'empathy'*) reference several contributors from the medical tradition that were highly influenced by these seminal works.[9,13,40,117,128,232] Within UMPA, the concept of '*Trust*' is partly attributed to work by Epstein,[232] and is relevant to PC as it relates to the '*Therapeutic Relationship*.' *'Trust'* reflects a patient's confidence in the expertise and intentions of the pharmacist, especially during times of uncertainty. The concept of *'Required Skills'* is derived from work by Howie[117] and others and seen as relevant to "Patient-Centredness" for the "Pharmacist." *'Required Skills'* refers to the pharmacist's competency in pharmacotherapy and communication skills. The concept of *'Empathy'* is built on work by Krupat,[40] Epstein,[232] and others and portrayed as relevant to PC as it relates to the "Pharmacist." *'Empathy'* is the ability to share the feelings of another and is portrayed as necessary for a '*Therapeutic Relationship*.' The organization and content of the UMPA's upper category is consistent with a process model approach to PC, where a non-ordinal list of elements essential to accomplishing PC from the patient perspective is identified.

The lower and more concretely operationalized UMPA category is the "Pharmaceutical Consultation" and receives input from the upper "Patient-Centeredness" theoretical category. The "Pharmaceutical Consultation" is made up of an additional two concepts arranged hierarchically and containing nine step-wise sub-concepts. The higher concept within the "Pharmaceutical Consultation" category is named *'Shared Problem Defining'* and is composed of 3 sequential sub-concepts: *'Involve,' 'Explore and understand,'* and *'Consider.' 'Shared Problem Defining'* is described by Wolters et al. as "the process of exploring and understanding the patient's view... [that results in] a shared understanding and agreement of the pharmacist and patient on the problems that need to

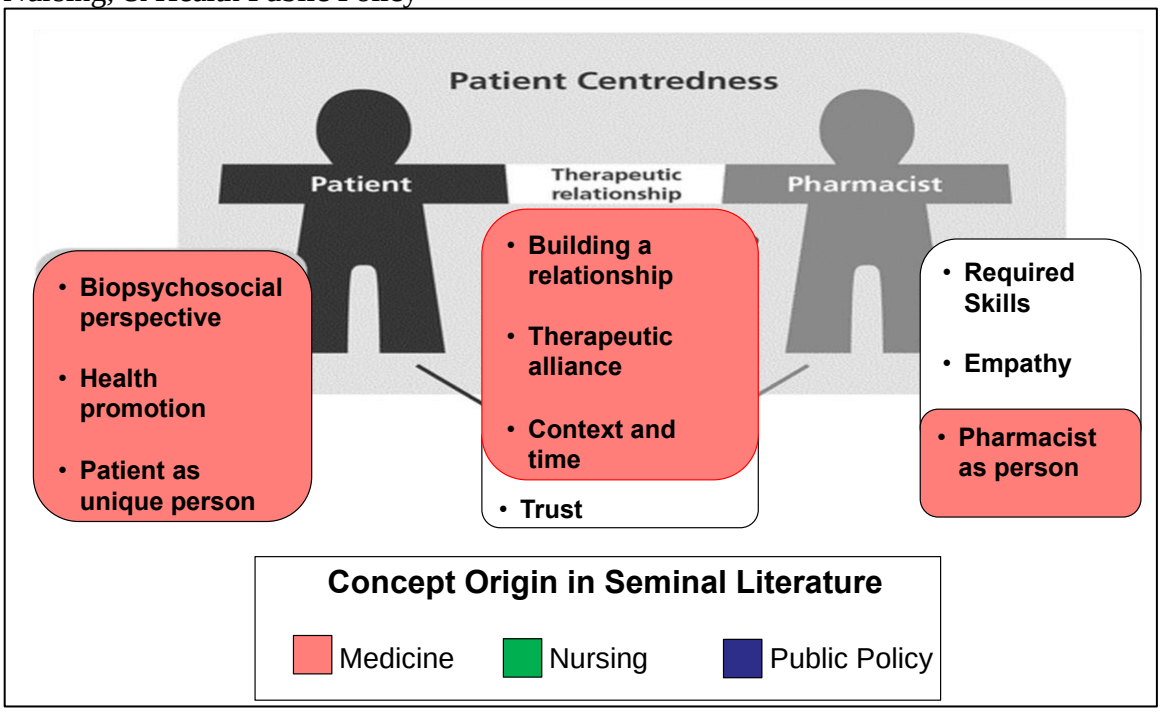
be dealt with during the consultation."[65] The creation of this concept comes from work by Little,[128] Epstein,[9] Krupat,[40] Stewart,[34] Michie,[13] and others and its first step is to *'Involve the patient in the consultation'* through the use of questions and active listening which is a prerequisite for the second step of *'Explore and understand the patient's perspective.'* This step again uses active listening to dive deeper into the patient's concerns to establish the problems that need to be addressed and to set expectations for the encounter. Finally, the third step is to *'Consider the patient's situation'* in order to tailor whatever medication expertise they will impart.

The lower concept of the "Pharmaceutical Consultation" category is '*Shared Decision Making,*' which is defined as "an approach whereby the pharmacist encourages the patient to actively participate and thus shares power and responsibility…[to] the extent to which patients want to be involved in choices." This identifies works in the medical tradition of PC like Mead & Bower,[66] Howie,[117] Michie,[13] Epstein,[232] Little,[128] and Krupat as its sources.[40] UMPA depicts *'Shared Decision Making'* as consisting of 3 step-wise sub-concepts (i.e., *'Inform the Patient,' 'Consider options and preferences,'* and *'Choose management plan*') which receive input from the *'Shared Problem Defining'* concept that precedes it. The first sub-conceptual step is *'Inform the patient,' which* means ensuring patients comprehend information about their care and feel comfortable asking questions so they can make informed decisions. The second sub-conceptual step is to *'Consider options and preferences'* which means that the patient and pharmacist evaluate medication therapy options according to patient preferences and self-efficacy. The final sub-conceptual step is to *'Choose management plan'* by the patient and pharmacist coming to a concordant agreement based on feasibility, shared

responsibility, and an agreement check.

Given the overarching objectives of this doctoral thesis pertain to the theoretical conceptualization of PC, rather than its operationalization, the upper half of the UMPA shall be the focus of the dissertation. A tracing of the theoretical concepts displayed in the upper-half of UMPA to its seminal roots shows it draws exclusively from the Medical tradition, as shown in Figure 16. This is somewhat unsurprising as the model's foundation in the PCPM is anchored to the micro-level of PC within and adjacent to the patient-pharmacist encounter.

Figure 16. Seminal Origins for the UMPA Conceptualization of PC from Medicine, Nursing, & Health Public Policy



Missing from the UMPA conceptualization are features from meso- and macro-levels of care more associated with the Nursing and Public Policy traditions. That being said,

Wolters et al. identify several barriers for pharmacists practicing that are not formally depicted in the model which extend outside of the micro-level:

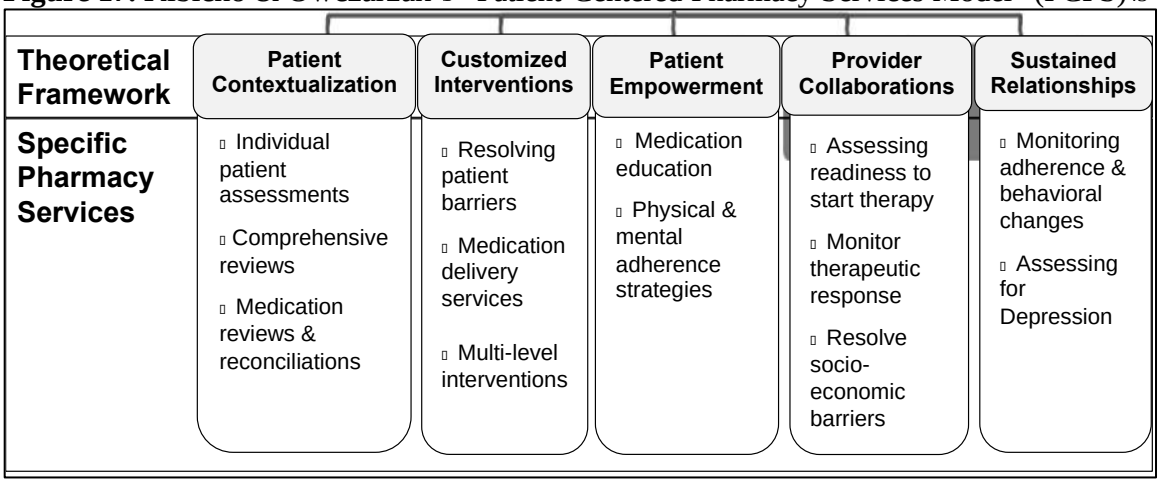
- Poor privacy prevents the patient's willingness to discuss problems
- Pharmacy workflows or spaces more conducive to patient communication with pharmacy or healthcare staff members other than the pharmacist
- Patient unfamiliarity with PCPM services

Many of these challenges arise from the organization of activities and caregivers surrounding the patient encounter and are better addressed by a systems model approach to PC. Kibicho & Owczarzak's 'Patient-Centered Pharmacy Services Model' (PCPS)[43] is an example of a systems approach PC model and is described in the next section.

Kibicho & Owczarzak's "Patient-Centered Pharmacy Services Model" (PCPS)[43]

The PCPS is a theoretical and empirical framework developed for the care of patients with HIV in community pharmacy settings. The model is displayed in Figure 17 and represents a systems approach to PC that organizes healthcare spaces, personnel, workflow activities, services, and more with the patient experience in mind and is congruent with the '*patient-focused care'* concept.[49,67,82,88,90] The PCPS consists of five theoretical concepts operationalized by five corresponding groups of pharmacy services.

Figure 17. Kibicho & Owczarzak's "Patient-Centered Pharmacy Services Model" (PCPS)[43]



The first theoretical concept of the PCPS is '*Patient Contextualization*.' Kibicho and Owczarzak describe this as "the process of identifying individual circumstances in which people experience health and illness, including socioeconomic/environmental [e.g., income, lifestyle, housing, health literacy, etc.] psychological [e.g., anxiety, depression, denial of HIV diagnosis, etc.] that can dominate, and in many cases overshadow, their healthcare needs." Additionally, this process requires a broad comprehension of a patient's medical history. The pair proposes the value of '*Patient Contextualization'* is to identify risk factors for nonadherence to inform the optimal interventions and strategies for adherence. The theoretical concept of '*Patient-as-person*' from the Medical tradition of PC most directly intersect with this understanding of '*Patient-Contextualization.'* Pharmacy services useful for *'Patient Contextualization'* include individualized patient assessments, comprehensive reviews, and medication reviews/reconciliations that use non-judgmental, open-ended questions about a patient's social and medical situation that are specific in nature (i.e., "How are you taking your medications?" instead of "What questions do you have?").

The second theoretical concept of the PCPS is '*Customized Interventions*.' Kibicho and Owczarzak describe this as using the socioeconomic/environmental, psychological, and medical information from the contextualization process to develop an appropriate, multi-dimensional individualized treatment plan that can improve medication adherence. The theoretical concept of the '*Biopsychosocial Perspective*' from the Medical tradition of PC most directly intersect with this understanding of '*Customized Interventions.'* Pharmacy services representing *'Customized Interventions'* are those that resolve patient barriers (e.g., assistance in applying for Medicaid, advancing medications at no cost, providing a cooler to store refrigerated medications, etc.), deliver medications to a patient's preferred location, involve multiple levels (e.g., referrals to other providers or resources).

The third theoretical concept of the PCPS is '*Patient Empowerment*.' Kibicho and Owczarzak describe this as "a process that recognizes an individual's ability to meet his or her own needs, solve his or her own problems, and mobilize personal and environmental resources to promote self-efficacy, assert control, and support for his or her own health." The theoretical concepts of '*Shared Power, Responsibility, and Common Ground*' from the Medical tradition, '*Patient's Care Involvement'* from the Nursing tradition of PC, both intersect with this understanding of '*Patient Empowerment.'* Pharmacy services representing *'Patient Empowerment'* are those providing education that fills patient knowledge gaps about medications (e.g., indication, how it is supposed to work, when to take, common side effects/interactions, storage instructions, etc.) as well as strategies to promote patient self-efficacy through improved

medication adherence using reminder tools that are physical (e.g., timers, pill organizers) and mental (e.g., taking medications in sync with a daily television show).

The fourth theoretical concept of the PCPS is '*Provider Collaborations*.' Kibicho and Owczarzak state that "collaboration among clinical (e.g., specialists, nurses) and non-clinical (e.g., case managers) providers that facilitate coordination of care (e.g., medical information) and ensures that patients have access to the resources they need in a timely manner." The theoretical concept of the '*Care Coordination & Integration*' from the Public Policy tradition of PC most directly intersect with this understanding of '*Provider Collaborations.'* Pharmacy services representing *'Provider Collaborations'* are those that allow prompt initiation of therapy (e.g., access to CD4+ counts), therapeutic response monitoring (e.g., labs for cholesterol levels, kidney/liver function), and the resolution of socioeconomic barriers (e.g., filing insurance paperwork, utilizing a professional network to bypass bureaucracy for needed social support, housing).

The fifth theoretical concept of the PCPS is '*Sustain Relationships.*' Kibicho and Owczarzak define it as "patient-provider relationships characterized by a caring attitude, responsiveness, access, and respect [that] fosters patient trust, influences adherence to treatment, and leads to better clinical results and higher patient satisfaction." It should be noted here that the pair does not comment on if the clinical results and patient satisfaction are equally important outcomes. The theoretical concepts of the '*Therapeutic Alliance*' from the Medical and '*Respect for Patient Preferences, Values, & Needs'* from the Public Policy tradition of PC most directly intersect with this understanding of '*Sustain Relationships.'* Pharmacy services representing *'Sustain Relationships'* include check-in phone calls to monitor for the ability to take medication as agreed upon (e.g., patient-

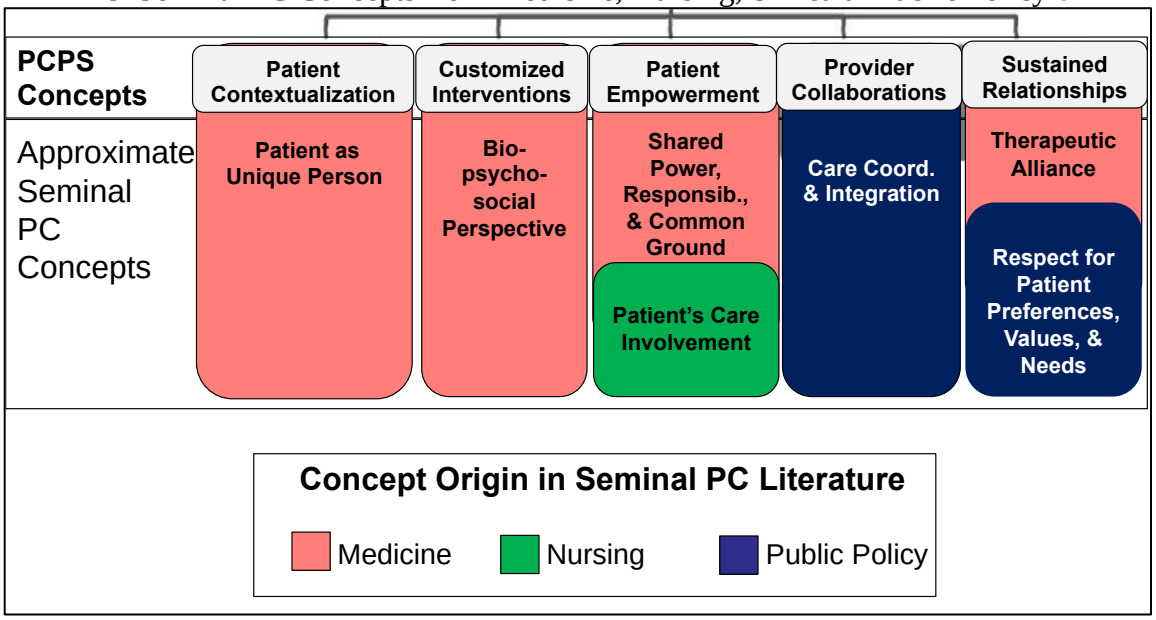
centered adherence), establishing a familiarity or even friendship level that can detect behavioral changes (e.g., depression) and enable key questions (e.g., Do you feel like you are hearing things?).

There are several distinguishing features between the PCPS and PCPM. First, the PCPS does not heavily draw from the overarching PC literature and cites only one reference tied to the seminal conceptualization of PC by Stewart from the medical literature.[43,45] This is somewhat surprising given its considerable overlap with several theoretical concepts within the seminal literature. One critic argues the PCPS is not really a theoretical model and only provides a pharmacist opinion about how care should be provided to patients with HIV. This assertion is further supported by findings from a scoping review of PC showing the PCPS model that did not incorporate any of Stewart's[21] PC concepts adequately.[264] Further complicating the situation is that even though Kibicho and Owczarzak state the PCPS model is informed by a "review of the literature of patient-centered care and MTM [medication therapy management] services," their work does not include a search strategy protocol.[43]

Another distinguishing feature of the PCPS is that it does not formally incorporate patients' specific therapeutic goals like the PCPM. This infers that either the patient's goals and benefits of these goals are assumed (i.e., Parson's sick role theory)[145] or are otherwise incorporated into the pharmacist's goal of fostering medication adherence. The PCPS also acknowledges it may not be conducive to all pharmacists or pharmacist practice settings due to differences in the types of services provided and the amount of time that can be feasibly devoted to each patient. This contradicts a core tenet of PPCP, which is intended for all pharmacist practice settings and services.

Finally, the PCPS appears to incorporate theoretical concepts beyond just the Medical Traditions, as shown in Figure 18. The representation of Nursing and Public Policy-related concepts speaks to a more institutional level (i.e., meso-level) approach than that found within UMPA and its PCPM foundation.

Figure 18. Congruence between Concepts in the "Patient-Centered Pharmacy Services Model" & Seminal PC Concepts from Medicine, Nursing, & Health Public Policy[43]



Abbreviations: Responsib.=Responsibility; Coord.=Coordination

Perhaps the only common feature shared by the PCPS and UMPA is the importance and designation of medication adherence as the predominant desired outcome of PCC provided by pharmacists with patients.

CHAPTER 3. METHODOLOGY

This qualitative study employed a directed content analysis approach following the steps outlined by Bengtsson.[265] Denzin and Lincoln define qualitative research as an "interpretive" and "naturalist approach" that attempts to understand and evaluate phenomena according to the meanings assigned by the people who experience them.[266] Qualitative methods represented the best tactic for generating comprehensive and meaningful data useful for fulfilling the purposes of this study, given that Patient-Centeredness (PC) is experiential and relies heavily on pharmacist and patient perspectives. Furthermore, the directed content analysis methodology was selected in particular because it provides an objective and systematic way to explore, understand, and establish a prerequisite link for assessing the validity of PC constructs in pharmacy models along with their goodness of fit with the seminal frameworks from the broader healthcare literature. Establishing this link is not only important for eliminating unnecessary and redundant terminology differences found in the modern interprofessional healthcare environment, but also for illuminating value and potential PC concepts from pharmacist care not previously noticed or recognized in the broader healthcare literature.

Directed content analysis is deductive, beginning with pre-existing content codes that are applied to study data to reveal areas where existing theory is supported, where it is lacking, or where it should be extended. For this study, 40 seminal concepts identified from the PC literature and displayed in Table 10 were used as the initial coding scheme to analyze data collected from study participants. This coding scheme also served to inform

the organization and development of questions for the semi-structured interviews with patients and pharmacists.

Table 10. The Forty Seminal PC Concepts from Medicine, Nursing, & Health Public Policy[72,148,157,181]

MEDICINE	NURSING	PUBLIC POLICY
• Therapeutic Alliance • Shared Power, Responsibility & Common Ground • Patient as Unique person • Biopsychosocial Perspective • Provider as Person • Context & Time • Disease Prevention & Health Promotion	• Health & Social Care Policy • Strategic Frameworks • Workforce Developments • Strategic Leadership ↓ • Professional Competency • Job Commitment • Interpersonal Skills • Knowing Self • Clarity of Beliefs & Values ↓ • Organizational Systems Support • Physical Environment • Appropriate Skill Mix • Effective Staff Relationships • Team Power Sharing • Shared decision-making System • Innovation & Risk-taking Potential ↓ • Authentic Engagement • Shared Decision- Making • Work with Patient's Beliefs & Values • Sympathetically Present • Provide Holistic Care ↓ • Care Experience • Patient's Care Involvement • Patient Wellbeing • Healthful Culture	• Respect for Patient Preferences, Values, & Needs • Emotional Support • Physical Support • Involve Family & Friends • Care Access • Information, Education, & Communication • Continuity & Transition • Care Coordination & Integration

According to Bengtsson, most qualitative studies in healthcare involve between 1 to 30 sources (e.g., study participants) depending on the aim and richness of data needed to satisfy the aim.[265] Unlike quantitative methods, there are few concrete rules or calculations that can be used to justify sample size, sample makeup, and preferred unit of analysis in content analysis. Instead, it is left to the researcher to adequately outline and justify the parameters for each of these characteristics as they relate to the study's purpose, scope, the complexity of the objective, and data source accessibility and quality.[265]

Given the nature of the research problem, depth of the PC literature, and an aim to better understand the conceptions and preferences of PC in care provided by pharmacists and patients, it was determined that the sample needed to be national in scope and reflective of different types of care settings. Furthermore, access to key informant networks through national pharmacist organizations and stakeholders made it feasible to build a purposive sample using these characteristics. It was also determined that the quantity and quality of data had to be well-balanced; large enough to reveal the nature and transferability of what is being investigated, but small enough for a feasible in-depth analysis of each data source.

A sample of nine pharmacists and nine patients scheduled for a care encounter consistent with the PPCP was initially targeted. These numbers were deemed justifiable because they allowed for the detection of meaningful variation and plausible transferability in line with study objectives; large enough to collect text from sources distributed across four geographic regions (i.e., West Coast, Midwest, South/Southeast, & East Coast) and practice settings (i.e., Retail/Health & Personal Care Pharmacy,

Federally Qualified Health Centers (FQHC), and Health/System/Clinic). Furthermore, the initial target numbers were also small enough to enable in-depth interviews that could last up to 45-90 minutes in length, guided by semi-structured interviews informed by the literature.

The content analysis literature also reserves the right for target samples to be modified if justified. Sample sizes can be increased if the nature of the object being studied appears to evolve, deepen, or change after the target numbers in the sample have been reached. Alternatively, the target sample size may be reduced for purposes of feasibility (N.B., corresponding with potential changes in the study's aim if appropriate) or if each passing interview suggests that further data collection is unlikely to produce informative findings or conceptual codes.

Inclusion & Exclusion Criteria

Inclusion and exclusion criteria designed to maximize the richness of data produced from samples were adopted. The inclusion criteria for pharmacist study participants were licensure in the state where they practice in an outpatient setting, a minimum of 10,000 hours of experience providing care with patients consistent with the PPCP, and at least two peer-reviewed patient care plans that consistent with the PPCP. Pharmacist subjects were identified using a national network of key informants who developed the PPCP.

Inclusion criteria for patients were nomination by pharmacists enrolled in the study, adults (≥18 years of age) diagnosed with multiple chronic conditions, receiving care from a nominating pharmacist in the past two years, and an upcoming care encounter with the nominating pharmacist. Exclusion criteria for patients were a diagnosis of a

psychotic disorder, DSM-5 Axis II condition, or schizophrenia. Data analysis will identify descriptive codes that will be converted into common themes for each specific aim.

It is important to note that the inclusion and exclusion criteria of the study are consistent with the PPCP's underlying assumption that it is applicable and relevant to all settings where care provided by pharmacists with patients takes place.

Data Privacy Considerations

Several steps were taken to preserve study participant privacy, confidentiality, and anonymity to the greatest degree possible. Data from this study were recorded on a digital recorder without any identification of the person speaking and was stored digitally on a secure University of Minnesota computer with encryption that will be preserved for a minimum period of ten years. Data is only accessible to the Principal Investigator/Dissertation Advisor (PI; initials JS), Co-Principal Investigator (Co-PI; initials TO), and one other member of the research team who is a graduate research assistant (initials LH), at the University of Minnesota – College of Pharmacy. The audio file was transcribed by a Hazeltree Professional Services, LLC but with all information that could be tied to participants de-identified so that no one besides the PI and Co-PI could identify the study participants. Transcripts and other files with study data were stored and accessed in the same way.

All data collected from study participants as well as analysis and assessments of rigor and quality generated by the study were banked for future use. Data were only shared with the three-person research team and will not be released to any outside party unless required by law or University administrative rule. Each study participant was

informed of how their data would be kept confidential under these conditions and not available for release to them. Research team members were adequately trained to access, protect, and store all data collected.

This research did not have greater than minimal risk for data integrity and privacy interests of participants given the small research team, primary data collection being conducted and recorded solely by TO, and de-identified data were analyzed only by TO and LH. No access to medical records or other private information of study participants was provided to the researcher beyond a mailing or email address so that potential study participants could be invited to learn more or participate in the study. This invitation contained JS and TO's contact information so that potential participants can choose to make contact or not.

Data Collection Procedures

The procedure for data collection began with the identification of potential study participants who are pharmacists using a national network of key informants, known to the researcher to be a part of the development and implementation of the PPCP. This purposive sampling approach was used to identify 'information-rich' data sources more efficiently than a probability-based approach.[267] All initial contact information with these potential participants came directly from these key informants or publicly available information.

Potential study participants who were patients were nominated by the pharmacist-participants who provided care with them. Initial contact for recruitment into the study came from a letter (see Appendix A) explaining the purpose of the study, what it consisted of, the risks and benefits of participating, and information for contacting JS and

TO by email or mail if they wished to enroll in the study. These letters were addressed from and signed by JS and TO but given to enrolled pharmacist study participants to add the prospective patient-participant address and put in the mail. This was done so that no patient's personal contact information was given to the study's researcher, and the prospective patient-participant was given full power to contact the researcher to enroll or not enroll. Formal enrollment of patient-participants took place at the beginning of the interview data collection, by verbally acknowledging their understanding and signature of the consent form (See Appendix A) reviewed and approved by the University of Minnesota, Office of the Vice President for Research, Human Research Protection Program – Institutional Review Board (IRB STUDY#00005247; see Appendix C), which were applied across all practice settings and organizations connected to the study.

Prospective pharmacist-participants for the study were contacted beginning November 19, 2018 by the Co-PI to describe the proposed project. Formal recruitment invitations (See Appendix A) were not sent to prospective pharmacist-participants until January 15, 2019, when the study and its materials were reviewed and approved by the University of Minnesota IRB. Study enrollment for pharmacists was closed a little less than ten months later on October 11, 2019. Recruitment of potential pharmacist study participants consisted of an initial email describing the purpose of the study and a request for a phone conversation to discuss the study's procedures and methods. If the pharmacist-participants agreed to the phone call and met all inclusion criteria, they were formally invited to enroll in the study.

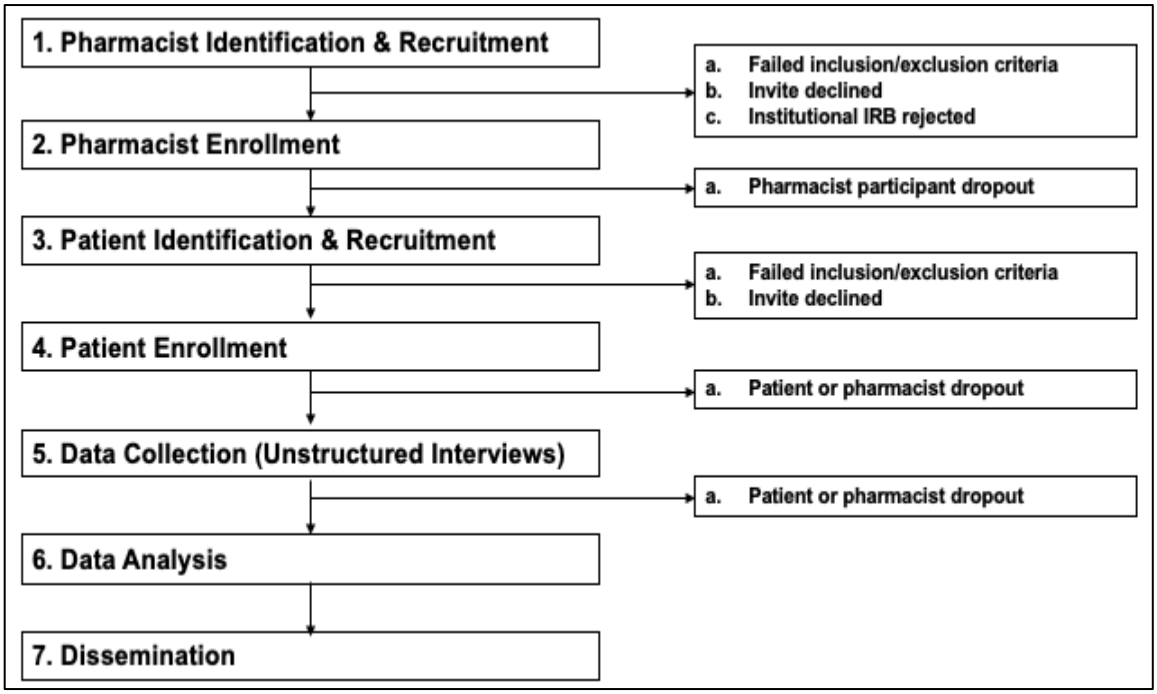
Formal enrollments of pharmacist-participants were finalized at the beginning of interview data collection with their verbal acknowledgment of understanding and signing

the consent form (See Appendix A) reviewed and approved by the University of Minnesota IRB. Potential patient-participants nominated by enrolled pharmacist-participants for inclusion learned of the study by a letter explaining the purpose of the study, what it consisted of, the risks and benefits of participating, and information to contact JS and TO by email or postal mail if they wished to enroll in the study. These letters were addressed from and signed by TO but given to the pharmacist-participant to add the prospective patient-participant address and put in the mail. This was done so that no patient's personal contact information was given to the study's researcher, and the prospective patient-participant was given full power to contact the researcher to enroll or not enroll within two weeks of receiving the letter.

Formal consent and enrollment of patient-participants took place at the beginning of interview data collection using materials reviewed and approved by the IRBs of all organizations connected to the care of each particular patient. The first patient-participant was enrolled in the study on March 12, 2019, and the last patient was enrolled a little more than ten months later on January 24, 2020. Patient-participants who completed the data-collection interview were sent a $50 VISA gift card or an alternative equal value gift card of their choosing for their participation. Colleagues at the University of Minnesota IRB indicated that they did not consider this level of benefit to be coercive. The compensation was mailed within one business week to a mailing address provided by the patient-participant. Any potential follow-up interviews requested by the researcher and granted by patient-participants followed the same protocols but not include an additional incentive for patient-participants. Pharmacist-participants were not given any incentive for participating. An outline of the study phases, including identification,

recruitment, and enrollment can be found in Figure 19. The total data collection timeline for this study was 12 months (i.e., January 2019-January 2020).

Figure 19. Representation of this Study's Step-wise Progression from Participant Recruitment thru Dissemination

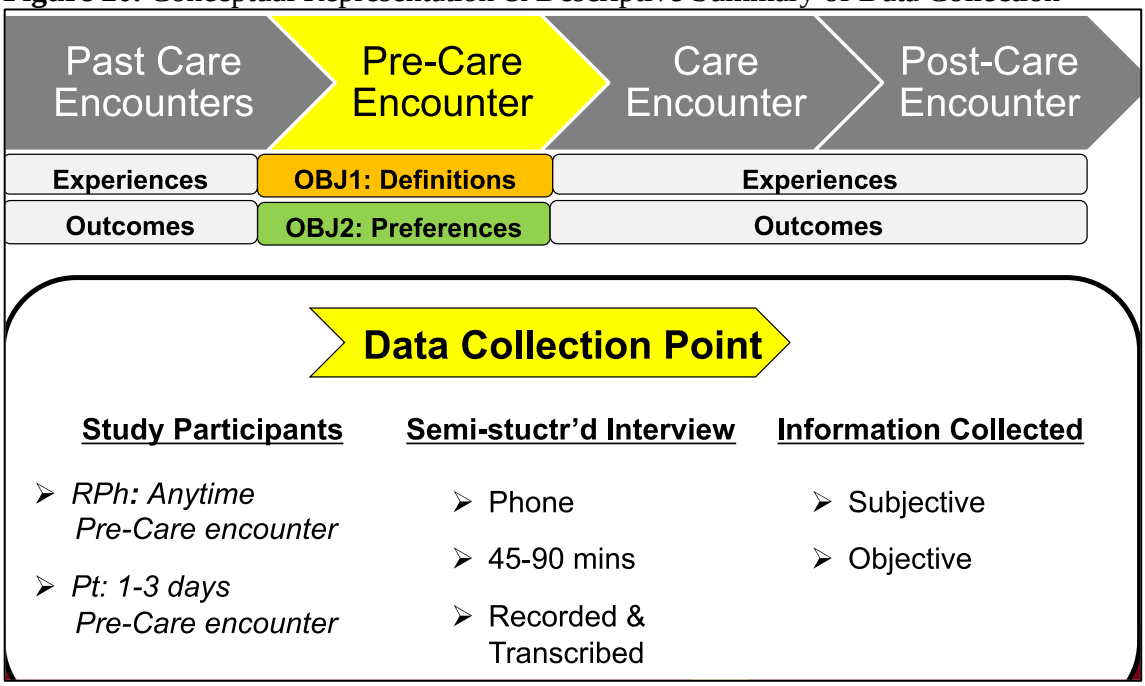


Data in this study were collected using semi-structured, in-depth interviews to allow the researcher to learn about people's lives on their own terms without anticipating the categories into which their experiences and meanings fit neatly into the researcher's agenda. Content generated from interviews was audio recorded. A list of initial, interjection, and follow-up questions to elicit concrete experiences of PC in care provided by pharmacists with patients from study participants are listed in interview guides in Appendix B. Other objective information collected from study participants included gender, age, race/ethnicity, employment, education, insurance status, primary means of accessing care, and how worried the patient felt about their health (to provide additional

context for data interpretation). To address all study objectives, each patient consented to an interview over the phone 1-3 days before the visit with their pharmacist. All interviews were conducted over the phone so conversations could take place at the place most convenient for each study participant.

The period before the care encounter was assumed to be the best data collection point because it is the temporal context most relevant for the patient to share their specific and detailed priorities, expectations, and preferences for the pharmacist consultation. This was important because of the way a patient articulates what matters to them depending on the context of their engagement with the health service and is dependent on the mindset and skills of the practitioner. Each interview lasted up to 90 minutes, but sometimes shorter per the participant's prerogative. The potential for any follow-up interviews was not anticipated and did not take place, but several study participants formally consented to follow-up interviews had they been needed. Figure 20 displays a graphical summary of the data collection information, including when it was collected for each study objective.

Figure 20. Conceptual Representation & Descriptive Summary of Data Collection



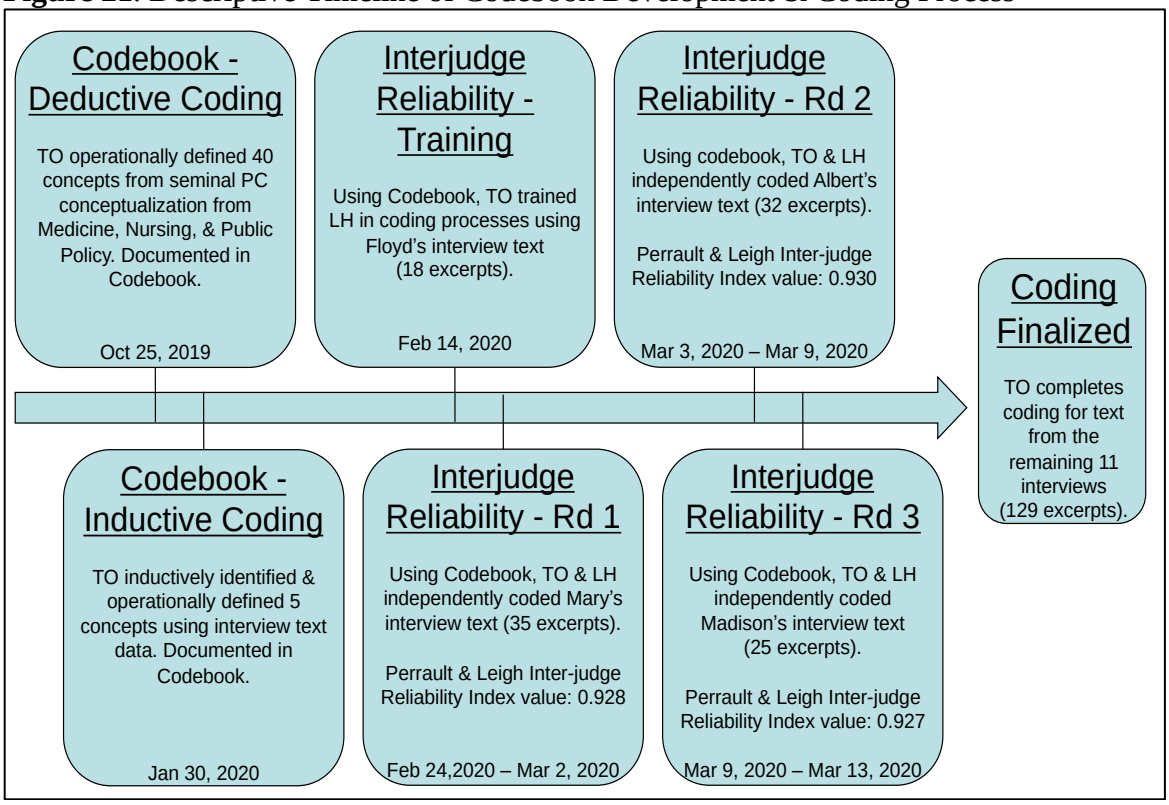
Data Coding

Analysis of the interview text used Directed Content Analysis as summarized in the opening sentences of this chapter.[5,11,21,268] This process began by TO developing operational definitions for each of the 40 initial conceptual codes from the theoretical literature and inductively identifying and defining three conceptual codes using transcribed interview text. The resulting 43 conceptual codes with corresponding operational definitions were placed into a digital codebook used by project coders TO and LH. The qualitative analysis program Dedoose[269] was used to code and analyze all text.

The timeline for the codebook development and coding process is summarized in Figure 21. Data analysis began with TO reading each transcribed interview and highlighted excerpts within Dedoose that captured PC concepts. These excerpts served as

the unit of analysis varied in length. Then, TO selected one interview on which to train the second coder, LH, on the coding process.

Figure 21. Descriptive Timeline of Codebook Development & Coding Process



*TO = co-primary investigator; LH = graduate research assistant
Abbreviations: PC=Patient-Centeredness

The training round consisted of both coders reading the full text from the selected interview with the unit of analysis excerpts highlighted in the text to get acquainted with the data. Afterward, the two coders used a latent analysis approach and independently applied the initial coding scheme to all excerpts according to operational definitions found in the digital codebook. A latent approach to coding (i.e., code applications based on researcher interpretation of the underlying meaning of the analyzed text) was used instead of a manifest coding approach (i.e., applications based specific keywords being mentioned) for two reasons.[265] First, study participants were unlikely to be familiar with

the literature terminology and concepts, and second, the healthcare literature is filled with varying uses of PC terminology indicating that it means very different things to different people.

Text not initially highlighted as excerpts but identified by LH as capturing PC concepts was discussed with TO about whether to include after the first round of coding. Also, any text within excerpts identified by TO or LH as not fitting with the initial predetermined coding scheme was assessed by the researchers to determine if it represented a new element or sub-element of an existing code. Both coders utilized careful note-taking when coding text and acknowledged any assumptions or other elements that may have affected the process. After completing the first read-through and code applications in the training, both coders conducted a collaborative line-by-line reading of each excerpt to compare codes and articulate their reasoning and came to an agreement before moving on to the first formal round of coding.

Formal coding consisted of three separate rounds, each judge independently assessing the full text from the same interview. In each round, the text from the selected interview was read independently by coders TO and LH to get acquainted with the data. Afterward, the two coders independently applied the initial coding scheme to all excerpts. Text not initially highlighted as excerpts but identified by LH as capturing PC concepts was set aside for discussion with TO about whether to include at the end of the round. Also, any text within excerpts identified by TO or LH as not fitting with predetermined codes was set aside for discussion at the end of the round to assess if it represented a new element or sub-element of an existing code. This line-by-line reading and coding of the text used careful note-taking regarding the text that had meaning for the objectives of the

study. Coder assumptions were acknowledged as part of the process. Personal presuppositions with the potential to influence analysis were accounted for in discussion between the researchers.

After the first round was completed, the interjudge coding reliability was assessed using Perrault and Leigh's Reliability Index (I) which is calculated as $I = \{[(F/N) - (1/k)] \times [k/(k - 1)]\}^{1/2}$ where F = judge agreement frequency, N = number of judgments made by judges, and k = the number of judgment categories. According to this Index, an acceptable threshold for interjudge coding reliability is an Index value of 0.9 or greater.[270] The Index value was 0.928, but the coders still conducted a line-by-line reading of each excerpt with non-matching codes to articulate their reasoning and inform the next round of coding. The researchers then progressed to the second interview round following the same steps, which resulted in an Index value of 0.930 and another line by line reading to discuss non-matching codes. The researchers then progressed to the third and last round following the same steps resulting in an Index value of 0.927. Altogether the training and formal rounds resulted in independent coding for 4 of the 15 study interviews that contained more than one-fourth of all study excerpts (i.e., 110/439 total excerpts), and at this point TO proceeded to code the remainder of the text.

Data Analysis Plan

The data analysis plan was broken into three parts. The first two parts corresponded to the study's two overarching objectives, and the third part fulfilled a methodological requirement for trustworthiness in qualitative research outlined by Guba & Krefting. A detailed description of each part of the data analysis plan is provided below.

3.1 Data Analysis Plan for Objective 1

The first section of the data analysis plan consisted of seven successive methodological steps, each with a necessary purpose and function related to the study's first objective of uncovering how PC is defined and conceptualized in care provided by pharmacists with patients. The seven steps are:

1. Rank-order seminal PC concepts (see Table 10)
2. Spatially align overlapping seminal PC concepts by Professional Origin
3. Merge overlapping seminal PC concepts into superordinate PC concepts and organize into conceptual groups
4. Rank-order superordinate PC concepts for Composite Dataset, Patient-only sub-dataset, and Pharmacist-only sub-dataset
5. Equalize magnitude of influence from patient and pharmacist sources in Composite Dataset and re-rank superordinate the PC concepts accordingly.
6. Transpose superordinate PC concepts and conceptual groupings onto UMPA and PCPS models
7. Assemble the conceptual PC model informed by PC literature using superordinate concepts and groupings from study data

The function of step 1 was to organize the 40 seminal PC concepts from the literature review by relative order of importance. For the purposes of this study, it was assumed that the frequency in which a PC concept code was applied to study excerpts directly related to its perceived importance by study participants (i.e., more frequent code applications in study excerpts indicated greater importance for the concept the code represents). Rank-ordering by code application frequency was determined to be a method of analysis given the scope, nature, and design of this study that made tests for statistical difference among the codes meaningless.

The second step was to spatially align overlapping seminal PC concepts by their professional origin. The purpose and function of this step were to reveal where the PC concepts from the three distinct traditions that aligned and overlapped, given they all aimed to describe components of the same construct.

The third step was to merge seminal PC concepts into superordinate PC concepts and organize them into conceptual groupings. Concepts were merged into a superordinate concept if at least 70% of their code applications co-occurred with that PC concept. In cases where two concept codes co-occurred with each other for at least 70% of their respective applications, the code with the co-lower co-occurrence proportion of co-occurrence became the superordinate concept. This merger step was conducted to minimize bias that artificially inflated or deflated the importance of components represented by multiple concepts for the PC construct.

The fourth step was to rank-order the superordinate PC concepts from step 3 for the Composite dataset, Patient-only sub-dataset, and Pharmacist-only sub-datasets using the same processes described in step 1. The purpose and function of this step were to reveal the relative order of importance of the superordinate PC concepts for all study participants as well as just patients and just pharmacists, respectively.

The fifth step was to equalize the magnitude of influence from patient and pharmacist sources in the Composite dataset for the superordinate PC concept rank-order. This was accomplished by multiplying the total number of excerpts in the Patient sub-dataset by a factor equal to the total number of excerpts coded in the Pharmacist sub-dataset divided by the total number of excerpts coded in the Patient sub-dataset. This was then used to re-rank the superordinate PC concepts and show differences between the

Patient and Pharmacist sub-datasets. The purpose and function of this step were to provide an "apples to apples" comparison of the relative order of importance of the superordinate PC concepts for patients and pharmacists given there were more of the latter enrolled in the study than there were of the former. Data were analyzed continuously with comparisons made using the Perrault and Leigh Index as well as analyzed discretely with comparisons made by calculating the differences between rank-order.

The sixth step was to transpose superordinate PC concepts and conceptual groupings onto the UMPA and PCPS models from the pharmacist PC literature. The purpose and function of this step were to reveal the areas of support and lack of support from the study's evidence for each respective model.

The seventh and final step was to build a conceptual PC model informed by PC literature using superordinate concepts and groupings from study data in fulfillment of the overarching aim of Objective 1.

3.2 Data Analysis Plan for Objective 2

The second section of the data analysis plan consisted of three successive methodological steps, each with a necessary purpose and function for the study's second objective to describe, interpret, and compare patient preferences and expectations of PC in care provided by pharmacists with patients.

1. Organize study excerpts into the respective conceptual groupings developed from Objective 1.
2. Identify the characteristics of preferences and expectations expressed by study participants for care provided by pharmacists with patients.

3. Inductively operationalize the characteristics from the previous step into concept codes.

The function of the first step was to create an organizational system for carrying out the second step. The function of the second step was to orient and familiarize the researcher with the study data in a way that enables the third step to be carried out. The function of the third step was to fulfill the overarching aim of Objective 2.

3.3 Data Analysis Plan for Qualitative Trustworthiness

The third section of the data analysis plan was conducted to maximize the trustworthiness of the study's findings by following the principles and strategies outlined by Guba and Krefting, who developed widely accepted thresholds for rigor in qualitative research.[271,272]

Before outlining the data analysis plan for this step, it is important to describe how rigor and trustworthiness are assessed differently and how qualitative and quantitative approaches are different, which reflects different underlying assumptions. Quantitative approaches assume a single concrete reality with independent and dependent variables whose connection can be objectively validated and reproduced. Qualitative approaches assume that several subjective realities are contained within human experience and that adequate descriptions can represent them in ways that are applicable and consistent with one another. Table 11 shows the four common assessment criteria shared by each approach but differentiates how an evaluation of each criterion is accomplished.

Table 11. Comparisons of Assessment Criteria for Rigor & Trustworthiness Between Quantitative & Qualitative Research Approaches (adapted from Guba & Krefting)[271,272]

ASSESSMENT CRITERIA	QUANTITATIVE APPROACH	QUALITATIVE APPROACH
Truth Value	Internal Validity Maximized by eliminating or reducing confounders.	Credibility Represented by immediate recognition by individuals with a shared experience.
Applicability	External Validity Sampling techniques like randomization enable generalizability from a sample to a population.	Transferability Dense description enables evaluation of the goodness of fit to other contexts.
Consistency	Reliability Pursued by minimizing sources of variability to reveal an unchanging true value. This is often accomplished by increasing sample sizes in the study.	Dependability Pursued by describing and tracking sources of variability to establish boundaries of an experiential phenomenon.
Neutrality	Objectivity Achieved by minimizing researcher biases introduced by instrumentation & randomization.	Confirmability Achieved by minimizing data biases by maximizing credibility and transferability.

Credibility is achieved when individuals sharing experiences would immediately recognize a description or interpretation of that human experience. This was accomplished by using reflexivity (i.e., field journal) and theoretical triangulation. A field journal was used for logging logistics, decisions/rationale about methods, and researcher thoughts (e.g., feelings, ideas, hypotheses, problems, and frustration). The use of theoretical triangulation, which confirms that multiple perspectives converge and ensures a comprehensive investigation of a phenomenon, was utilized to compare perspectives of pharmacists and patients with PC models identified in the literature.

Transferability is achieved when contexts with characteristics other than those present in the study have the goodness of fit with the study's contextual situation. In qualitative research, a dense description is necessary to inform and enable result comparisons in subsequent studies. Transferability was maximized by using a nominated sample of patient-participants selected by a panel of pharmacists experienced in providing care consistent with the PPCP, so the phenomenon being investigated is representative to the greatest degree possible. The strategy of providing a dense description, or detailed information of all study participants and the context and setting where the research is being conducted, also allow future researchers to assess how transferable the findings are. Information that was collected includes but is not limited to gender, age, race/ethnicity, employment, work, education, insurance status, primary means of accessing care, personal family history, how well/worried the patient feels, familiarity with the practitioner, and service referral information, etc. to provide additional context for data interpretation.

Dependability and confirmability refer to how consistent findings are and can be through a detailed description of exact methods of data gathering, analysis, and interpretation. This provides insight into how unique or repeatable the study is. One way this was accomplished is by creating an 'audit trail' of decisions within the field journal by the study investigator that can be easily understood. Another strategy that was used is the 'step-wise replication' technique, where a quarter of the data collected was given to a second researcher (LH) familiar with qualitative methods to analyze and compare the results with. Finally, a code-recode procedure was followed during the analysis phase to improve the dependability of this study's results. This consisted of the researcher coding

the segment data, then waiting at least two weeks and returning to recode the same data and compare the results.

With the four trustworthiness criteria outlined by Guba & Krefting in mind, the third section of the data analysis plan summarized the sample of study participants by geographical location, care setting, participant type (i.e., patient or pharmacist), and other demographic descriptors. It also provides a detailed description of each study participant's definitions, preferences, and expectations for PC in their own words.

CHAPTER 4. RESULTS

4.1 Results for Objective 1

The first objective of this doctoral thesis was to uncover how Patient-Centeredness (PC) is defined and conceptualized in care provided by pharmacists with patients. This was accomplished by following the coding protocols and seven step data analysis plan outlined in Chapter 3 for the 439 excepts making up the study's Composite dataset (N.B., excerpts are bits of text from a data source varying in length that are the unit of analysis in this study) as well as two mutually exclusive sub-datasets for patients (162 excerpts) and pharmacists (277 excerpts), respectively.

The top ten results for the Composite dataset and two sub-datasets produced from step 1 are presented in Table 12, along with each concept's seminal tradition of origin. The concept code with the highest number of applications received the rank of "1," indicating it was assumed to be the most important to PC relative to other concepts in the study. Similarly, because the '*Biopsychosocial Perspective'* concept had 187 applications in the Composite dataset, it is interpreted as having a higher level of importance to care provided by pharmacists with patients than '*Care Coordination & Integration*,' with 154 code applications in the Composite dataset. Please note that descriptive and in-depth reporting of the results for Objective 1 begins at step 5 of the data analysis plan (see Chapter 3) when interpretation is most meaningful. However, the respective results for each of the seven described steps in the methodology are displayed for the purposes of transparency and completeness.

Table 12. Top 10 Seminal Concept Codes for the Composite, Patient-only, & Pharmacist-only Datasets from Step 1 of the Objective 1 Analysis

Concept Codes	***Rank Order (Excerpt Applications)***			***Seminal Tradition***
	Composite (n=439)	*Patient (n=162)*	*Pharmacist (n=277)*	
Care Experience	1 (209)	1 (106)	7 (103)	**Nursing**
Provider as Person	2 (203)	5 (83)	3 (120)	**Medicine**
Information, Education, & Communication	3 (202)	6 (80)	1 (122)	**Public Policy**
Therapeutic Alliance	4 (196)	2 (96)	8 (100)	**Medicine**
Biopsychosocial Perspective	5 (187)	10 (65)	1 (122)	**Medicine**
Authentic Engagement	5 (187)	3 (92)	9 (95)	**Nursing**
Shared Power, Responsibility, & Common Ground	7 (177)	7 (69)	5 (108)	**Medicine**
Patient as Unique Person	8 (174)	8 (66)	6 (107)	**Medicine**
Working with Patient's Beliefs & Values	9 (159)	X (56)	7 (103)	**Nursing**
Patient's Feelings of Wellbeing	10 (154)	4 (87)	X (67)	**Nursing**
Care Coordination & Integration	10 (154)	X (45)	4 (109)	**Public Policy**
Disease Prevention & Health Promotion	X (138)	10 (65)	10 (73)	**Public Policy**

X= Not in Top 10

The results for the second and third steps of the data analysis for Objective 1 are depicted in Figure 22 and Table 13, respectively. Figure 22 shows the spatial alignment of overlapping seminal PC concepts. Vertical alignment in the figure represents codes originating from the same seminal tradition, while horizontal alignment indicates overlap in the concept definitions and code application co-occurrences within the dataset. The concept '*Respect for Patient Preferences, Values, & Needs'* from the Public Policy domain was removed during this step signified by a crossed-out cell in the upper right-hand corner of Figure 22 due to its high co-occurrences across several otherwise distinct

codes. This action was taken to improve the precision and informative quality of successive findings of the study.

Table 13 depicts the proportional co-occurrences of the original 40 seminal PC concept codes with the 13 Superordinate PC concept codes they were merged into for the Composite, Patient-only, and Pharmacist-only datasets. The first column organizes the concept into seminal codes beneath their respective superordinate codes, with the latter being highlighted in color across the rows. The second column is broken into three sub-columns containing the proportional co-occurrences of each subordinate code with its superordinate code from each dataset. The third and final column organizes the superordinate and subordinate codes by color into conceptual groupings that reflect overlapping content areas within the overarching PC construct. These conceptual groupings and their corresponding colors are also represented in Figure 22 for the purposes of clarity, despite the conceptual groupings were not created until step three.

As a reminder, both the spatial alignment and superordinate mergers were conducted to identify and reduce bias from artificial over- and under-representation of importance for PC construct components. For example, '*Therapeutic Alliance'* and '*Authentic Engagement*' come from different seminal traditions (i.e., Medicine and Nursing, respectively) but have high overlap in definitions and levels of co-occurrence, essentially "double-counting" the importance of their shared conceptual area. Conversely, the highly granular and aligned concepts of *'Appropriate Skill Mix,' 'Effective Staff Relationships,' 'Team Power Sharing,*' and others appear less important on their own, but constitute an important and relevant component of PC when considered together.

Figure 22. Spatial Alignment of Seminal PC Concepts Codes from Medicine, Nursing, & Health Public Policy for Step 2 of the Objective 1 Analysis

MEDICINE	NURSING	PUBLIC POLICY
Therapeutic Alliance	Authentic Engagement	Respect for Patient Preferences, Needs, & Values
Shared Power, Responsibility, & Common Ground	Patient's Care Involvement	
	Shared Decision Making	
Patient as Unique Person	Work with Patient's Beliefs & Values	
Biopsychosocial Perspective	Sympathetically Present	Emotional Support
	Provide Holistic Care	Physical Support
		Family & Friend Involvement
Provider as Person	Professional Competency	//
	Job Commitment	//
	Interpersonal Skills	//
	Knowing Self	//
	Clarity of Beliefs & Values	//
		//
Context & Time	Patient Wellbeing	Care Access
	Physical Environment	
	Care Experiences	
Disease Prevention & Health Promotion	//	Information, Education, & Communication
	//	Continuity & Transition
	//	
	//	
//	Appropriate Skill Mix	Care Coordination & Integration
//	Effective Staff Relationships	
//	Team Power Sharing	
//	Organizational Support Systems	
//	Shared Decision-making Systems	
//	Innovation & Risk-taking Potential	
//	Healthful Culture	
//	Workforce Developments	//
//	Strategic Frameworks	//
//	Strategic Leadership	//
//	Health & Social Care Policy	//
//		//

Note: Cells with color show Top 12 most frequently applied concept codes. Cell color corresponds with conceptual groupings shown in Table 13. The crossed-out cell in the upper right-hand corner signifies the removal of the highly co-occurring '*Respect for Patient Preferences Needs, &* Values' from the analyzed concepts to improve the precision and informative quality of the study's findings. Cells with the multiple back-slash (////) characters signify that no concept from respective seminal traditions existed in the specified area.

Table 13. Proportional Co-occurrences Between Seminal & Superordinate PC Concept Codes in all Study Datasets from Step 3 of the Objective 1 Analysis

Concept Codes	***Proportional Co-occurrence w/ Parent Code (%)***			***Conceptual Groups (A,B,C,D,E,F,G)***
	Composite	*Patient*	*Pharmacist*	
Therapeutic Alliance				**A. Patient-Pharmacist Relationship**
Authentic Engagement	91	89	92	
Shared Power, Responsibility, & Common Ground				
Patient Involvement	100	100	100	
Shared Decision-making	98	97	100	
Patient as Unique Person				**B. Patient as a Unique Person**
Working with Patient's Beliefs & Values	90	89	91	
Biopsychosocial Perspective				**C. Biopsychosocial Perspective**
Holistic Care	98	99	96	
Emotional Support	96	93	100	
Physical Support	100	100	100	
Involvement of Family & Friends	100	100	100	
Provider as Person				**D. Clinician Characteristics**
Job Commitment	100	100	100	
Interpersonal Skills	100	100	100	
Knowing Self	100	100	100	
Clarity of Beliefs & Values	100	100	100	
Sympathetically Present	98	96	100	
Professional Competency				
Information, Education, & Communication				**E. Care Mediators & Moderators**
Disease Prevention & Promotion	91	95	86	
Continuity & Transition	95	93	100	
Care Experience				
Patient's Feelings of Well-being	94	88	99	
Physical Environment	100	100	100	
Context & Time	73	66	90	
Care Access	89	84	93	

Care Coordination & Integration				**F. Care Coordination & Integration**
Healthful Culture	94	93	96	
Effective Staff Relationships	98	97	100	
Innovation & Risk-taking Potential	83	79	95	
Supportive Organizational Systems	83	79	90	
Appropriate Skill Mix	88	87	91	
Shared Decision-making System	83	79	94	
Team Power Sharing	81	81	81	
Workforce Developments				**G. Macro Environment**
Strategic Frameworks				
Strategic Leadership				
Health & Social Care Policy				

The fourth step of the data analysis for Objective 1 rank-orders the superordinate PC concepts for the Composite dataset, Patient-only sub-dataset, and Pharmacist-only sub-dataset by repeating the processes of the first step. Table 14 displays these results alongside their corresponding conceptual grouping. Again, a descriptive and in-depth reporting of results is presented at step 5 of the data analysis plan (see Chapter 3), when interpretation is most meaningful.

Table 14. Top 10 Superordinate Concept Codes for the Composite, Patient-only, & Pharmacist-only Datasets from Step 4 of the Objective 1 Analysis

Concept Codes	*Rank Order (Excerpt Applications)*			*Conceptual Groups (A,B,C,D,E,F,G)*
	Composite (n=439)	*Patient (n=162)*	*Pharmacist (n=277)*	
Care Experience	1 (243)	1 (111)	2 (132)	**E. Care Mediators & Moderators**
Information, Education, & Communication	2 (215)	3 (89)	3 (126)	**E. Care Mediators & Moderators**
Therapeutic Alliance	3 (213)	2 (103)	7 (110)	**A. Patient-Pharmacist Relationship**
Provider as Person	4 (205)	4 (83)	5 (122)	**D. Clinician Characteristics**
Care Coordination	5 (194)	8 (54)	1 (140)	**F. Care Coordination & Integration**
Biopsychosocial Perspective	6 (192)	7 (67)	4 (125)	**C. Biopsychosocial Perspective**
Patient as Unique Person	7 (190)	5 (72)	6 (118)	**B. Patient as Unique Person**
Shared Power, Responsibility, & Common Ground	8 (179)	6 (69)	8 (110)	**A. Patient-Pharmacist Relationship**
Professional Competency	9 (69)	10 (27)	10 (42)	**D. Clinician Characteristics**
Strategic Frameworks	10 (59)	10 (12)	9 (47)	**G. Macro Environment**

The fifth step of the data analysis for Objective 1 equalized the magnitude of influence for patient and pharmacist sources in the Composite dataset, followed by a re-ranking of the superordinate PC concepts. This was accomplished by multiplying the total number of excerpts for each superordinate concept within the Patient sub-dataset by a factor of $\frac{277}{162}$ (i.e., numerator=total number of excerpts coded in the Pharmacist sub-dataset, denominator=total number of excerpts coded in the Patient sub-dataset). Table 15 displays these results alongside their corresponding conceptual grouping. Additionally,

Figures 23 and 24 display the differential magnitudes between patients and pharmacists measured discretely and continuously for the Weighted Composite dataset, respectively.

Table 15. Top 10 Superordinate Concept Codes for the Weighted Composite, Weighted Patient-only, & Pharmacist-only Datasets from Step 5 of the Objective 1 Analysis

Concept Codes	***Rank Order (Excerpt Applications)***			***Conceptual Groups (A,B,C,D,E,F,G)***
	Composite (n=554*)	***Patient (n=277*)***	***Pharmacist (n=277)***	
Care Experience	1 (322)	1 (190)	2 (132)	**E. Care Mediators & Moderators**
Therapeutic Alliance	2 (286)	2 (176)	7 (110)	**A. Patient-Pharmacist Relationship**
Information, Education, & Communication	3 (278)	3 (152)	3 (126)	**E. Care Mediators & Moderators**
Provider as Person	4 (264)	4 (142)	5 (122)	**D. Clinician Characteristics**
Patient as Unique Person	5 (241)	5 (123)	6 (118)	**B. Patient as Unique Person**
Biopsychosocial Perspective	6 (240)	7 (115)	4 (125)	**C. Biopsychosocial Perspective**
Care Coordination	7 (232)	8 (92)	1 (140)	**F. Care Coordination & Integration**
Shared Power, Responsibility, & Common Ground	8 (228)	6 (118)	8 (110)	**A. Patient-Pharmacist Relationship**
Professional Competency	9 (88)	10 (46)	10 (42)	**D. Clinician Characteristics**
Strategic Frameworks	10 (68)	10 (21)	9 (47)	**G. Macro Environment**

*Data weighted so the magnitude of influence from patient study participants matched pharmacists study participants.

Figure 23. A Discrete-variable Comparison of the Rank-order Differentials between Patients & Pharmacists for the Top 10 Superordinate PC Concept Codes using the Weighted Composite Dataset

Comp Rank	Concept Codes	More Patient Mentions □ Δ							□ More Pharmacist Mentions						
		Δ 7	Δ 6	Δ 5	Δ 4	Δ 3	Δ 2	Δ 1	=	Δ 1	Δ 2	Δ 3	Δ 4	Δ 5	Δ 6	Δ 7
1	Care Experience (CE)							CE								
2	Therapeutic Alliance (TA)			TA												
3	Info., Educ., & Commun. (IEC)								IEC							
4	Provider as Person (PrP)							PrP								
5	Patient as Unique Person (PtP)							PtP								
6	Biopsychosoc. Perspective (BSP)											BSP				
7	Care Coord./Integrat. (CCI)															CCI
8	Shared Power, Resp., & Com. Grd. (SP)						SPRCG									
9	Professional Competency (PC)								PC							
10	Strategic Framework (SF)									SF						

Abbreviations: Comp.=Composite; Info.=Information; Educ.=Education; Commun.=Communication; Biopsychosoc.=Biopsychosocial; Coord.=Coordination; Integrat.=Integration; Resp.=Responsibility; Com.=Common; Grd.=Ground

Figure 24. A Continuous-variable Comparison of the Code Application Differentials between Patients & Pharmacists for the Top 10 Superordinate PC Concepts using the Weighted Composite Dataset

Comp. Rank	Concept Codes	More Patient Mentions □							Δ	□ More Pharmacist Mentions						
		70	60	50	40	30	20	10	=	10	20	30	40	50	60	70
1	Care Experience (CE)	**58 (*0.76)**														
2	Therapeutic Alliance (TA)	**66 (*0.72)**														
3	Info., Educ., & Communication (IEC)					**26 (*0.90)**										
4	Provider as Person (PrP)						**20 (*0.93)**									
5	Patient as Unique Person (PtP)							**5 (*0.97)**								
6	Biopsychosocial Perspective (BSP)								**10 (*0.96)**							
7	Care Coord./Integrat. (CCI)													**48 (*0.81)**		
8	Shared Power, Resp., & Com. Grd. (SPRCG)							**8 (*0.97)**								
9	Professional Competency (PC)								**4 (*0.97)**							
10	Strategic Framework (SF)										**26 (*0.90)**					

Abbreviations: Info.=Information; Educ.=Education; Coord.=Coordination; Integrat.=Integration; Resp.=Responsibility; Com.=Common; Grd.=Ground

(*#) = Perrault and Leigh Index Value; <0.9 represents notable level of disagreement

Figures 23 and 24 show high alignment between patient and pharmacist responses for what matters most in PC regardless of whether data was analyzed using discrete differentials (i.e., change in rank in Figure 23) or continuous differentials (i.e., different in code application frequencies in Figure 24). Figure 23 shows that four of the top five superordinate concept codes and six of the top ten superordinate concept codes were similar in the relative importance between the weighted sub-datasets for patients and

pharmacists when measured discretely (i.e., ≤Δ1 rank order). Similarly, Figure 24 shows that 7 of the top 10 weighted superordinate concept codes had high levels of consistency between patients and pharmacists when measured continuously (i.e., Perrault & Leigh Index value: I≤90%). The Perrault & Leigh Index is generally used to assess interjudge coding reliability but was determined to be compatible for evaluating the degree of agreement between Patient and Pharmacist sub-datasets about the relative importance of PC concepts because it accounted for chance agreement. Taken together, these results show high congruence in the relative importance of five concept codes using both discrete and continuous data analysis: '*Information, Education, & Communication,' 'Provider as Person,' 'Patient as Unique Person,' 'Professional Competency,*' and '*Strategic Frameworks.'*

The discrete and continuous analyses also showed contrasting differentials between the Patient and Pharmacist sub-datasets for two superordinate concept codes: '*Therapeutic Alliance'* and *'Care Coordination & Integration.*' Results from the Patient sub-dataset showed the *'Therapeutic Alliance'* ranking five spots higher for patients than pharmacists (i.e., Δ=5) with a Perrault & Leigh Index value of 72%. For *'Care Coordination & Integration*,' both the discrete and continuous analyses showed that pharmacists viewed the concept as much more important than did patients (e.g., Δ=7 and I=81% concept code differential).

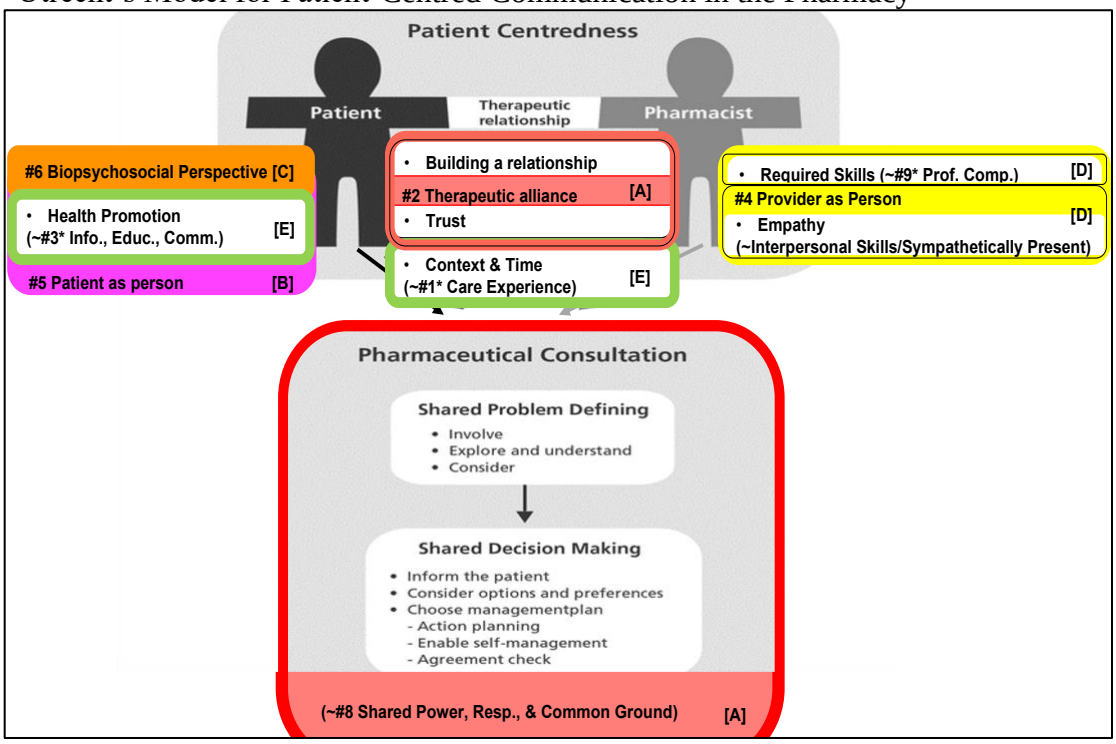
The comparative results for patient and pharmacist perceptions about the relative importance of the remaining three superordinate concepts differed between the continuous and discrete analyses. First, the concept of '*Shared Power, Responsibility, & Common Ground'* was relatively more important to patients than pharmacists (i.e., Δ=2)

using a discrete analytical approach, but less so when using a continuous analysis (i.e., I=97%). Second, the '*Biopsychosocial Perspective'* was relatively more important in the Pharmacist sub-dataset than in the Patient sub-dataset per the discrete analysis (#4 vs. #7, respectively), but less so in the continuous analysis (i.e., I=96%).

The tenth and final concept code of *'Care Experience'* is ranked #1 in the Weighted Composite dataset. Using a discrete analytical approach, the rank order differential between the Patient and Pharmacist sub-datasets was minimal (i.e., Δ=1). However, the continuous analysis provided a Perrault and Leigh Index value of 76%, representing a large differential between patients and pharmacists. While both patients and pharmacists reported the '*Care Experience'* as one of the most important PC concepts in pharmacist care with patients, it was rated as substantially more important by patients than pharmacists.

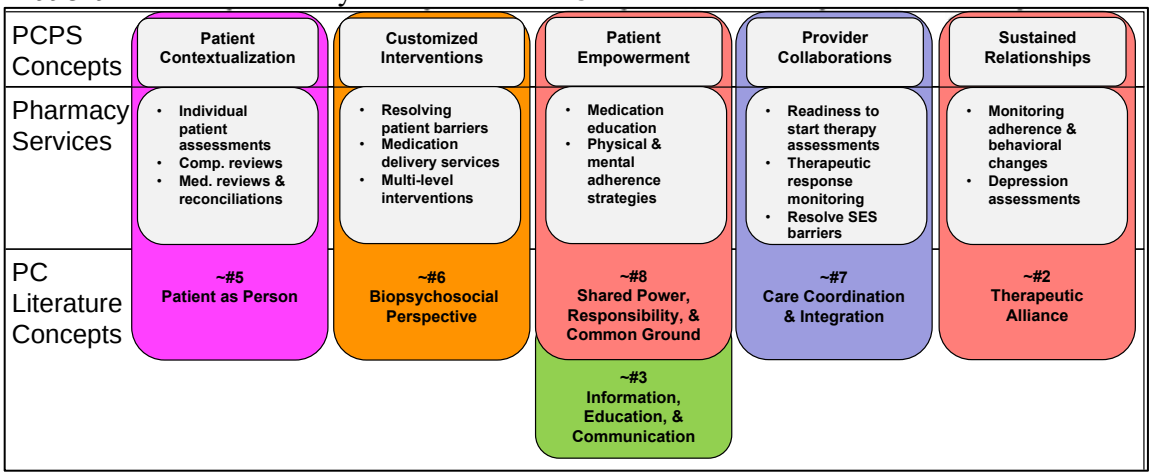
The sixth step of the data analysis for Objective 1 transposes the superordinate PC concepts and conceptual groupings produced from the study data onto UMPA and PCPS models. Figure 25 maps the rank order and conceptual grouping of the superordinate concept codes in this study onto the UMPA, while Figure 26 does likewise for the PCPS.

Figure 25. Congruence between the Superordinate PC Concepts from this Study & the "Utrecht's Model for Patient-Centred Communication in the Pharmacy"



Abbreviations: Info.=Information; Educ.=Education; Comm.=Communication
#= Rank-order of UMPA concepts matching or approximating Superordinate Concepts from this study.
(~#)= Rank-order of Superordinate Concept that approximates UMPA Concept
[Letter]= Superordinate Conceptual Grouping for matching or approximating UMPA concepts
Fill Color= Matching Superordinate and UMPA Concepts; No Fill/Line Color= Superordinate Concept approximates UMPA Concept

Figure 26. Congruence between the Superordinate PC Concepts from this Study & the "Patient-Centered Pharmacy Services Model"[43]



(~#)= Rank-order in study of Superordinate Concept that approximates by PCPS Concept
Color= Conceptual Group for Superordinate Concept that approximates PCPS Concept

Results from this step show a moderate level of overlap between the study results and both UMPA and PCPS, as evidenced by several identical or highly related component concepts. On the other hand, some areas of the UMPA and PCPS did not match up well with study results. The following sections will describe these results as they relate to each superordinate concept alongside their operational definitions and exemplary excerpts from patient and pharmacist study participants to illustrate their meaning.

Biopsychosocial Perspective

The operational definition for the '*Biopsychosocial Perspective'* concept for this study was a "provider's recognition, or perceived recognition by the patient, as accounting for the patient as a whole person in his or her biological, psychological, and social context which is necessary to account for the full range of problems and ways to promote health presented in healthcare." This concept and definition originates from the Medicine PC literature and sufficiently captures the meaning of other seminal concepts '*Holistic Care* (Nursing),' '*Emotional Support* (Public Policy)' '*Physical Support* (Public Policy),' and *Involvement of Family and Friends* (Public Policy),' within this study's context and purpose. The following text illustrates this concept's meaning in the words of a pharmacist from Washington outlining the information she collects, assesses, and plans with when caring for one of her patients.

> *"A patient has chronic pain from RA [rheumatoid arthritis], unemployed, poor health coverage, just got out of a long-term relationship, so think of the personal implications that are contributing to her chronic pain management. And she just recently had a urine sample with cocaine in it, so we had to taper her off her opioids, and she is just saying, what do I do?... it would have been very easy for me to just say no more opioids, sorry and leave it at that…but I needed to meet her where she's at..."*

In the description, that pharmacist identifies more than just the biomedical condition of the patient as relevant and extends the perception to social considerations of the patient's employment status and ability to afford the treatment necessary to manage their health. Furthermore, the pharmacist alludes to the psychological impact from ending a long-term relationship might have on the individual and their care. It should also be noted that in each of these descriptions the pharmacist uses patient-first language that identifies the subject as possessing the disease, employment, and financial qualities rather than being defined by them. This perspective informs the pharmacist on how to holistically care and support the patient in managing multi-faceted problems impacting the patient's health.

This exemplary excerpt is one of 192 articulations from patients and pharmacists that speak to the importance of the '*Biopsychosocial Perspective'* to care and serves as justification for the concept's inclusion in any PC model of care provided by pharmacists with patients.

The results from this arm of the study also show high overlap with the UMPA model, especially its inclusion of the '*Biopsychosocial Perspective'* concept under the "Patient" category in a way that is consistent with the seminal literature.

For the PCPS, the study findings are less supportive given the mode uses concepts and definitions not present or prominent in the PC literature. For example, the PCPS model includes a '*Customize interventions to unique patient circumstances'* concept that refers to care that "identifies and incorporates both biomedical and contextual issues during patient encounters to develop a treatment plan" and services that resolve patient barriers like medication delivery systems and multi-level interventions. This definition

and the related services approximate on the '*Biopsychosocial Perspective'* concept, but the PCPS model does not provide a justifiable rationale for substituting an alternative concept to describe PC elements more broadly contained and robustly represented in the seminal literature.

Patient as a Unique Person

The operational definition for the '*Patient as Unique Person'* concept in this study was "elements identified by pharmacist or patient that reflect the provider's recognition of the patient's uniqueness (individual needs, preferences, values, feelings, beliefs, concerns and ideas, and expectations) and aim to understand the personal meaning and experience of the illness/medication (i.e., biography; personal meaning, expectations, fears, etc.)." At first glance, this definition may be difficult to distinguish from the '*Biopsychosocial Perspective'* given its inclusion of psychological and social elements, but what differentiates the '*Patient as Unique Person*' is the main idea of treating each individual as unique, rather than as part of a population, segment, or type.

The '*Patient as Unique Person'* concept and definition comes from the Medicine PC literature. Step 3 of the data analysis found this concept sufficiently captured the Nursing concept of '*Working with a Patient's Beliefs and Values,'* and therefore it was designated a superordinate concept. The following text illustrates the meaning of the '*Patient as Unique Person'* concept in the words of a pharmacist from California who describes the differences she's noticed among her patients as well as how she tries to understand each of them individually.

> *"Some patients think that medication will help save their life and take it religiously…But there's some patients that won't take their meds and*

> *even believe it's going to kill them... They looked online or heard something from a family member...You must understand a patient's perspective and beliefs, what they think about the medication, and how it affects their life...You know, you can't just feed them information and expect them to adhere That's not going to work…you've got to listen to your patient."*

The pharmacist acknowledges how each person will have unique beliefs, interpretations, experiences, and behaviors associated with their medications that must inform the care she provides with them. Another supportive example below from a patient in Minnesota describing how important individualized care for them personally, while also realizing it may not be to other patients his pharmacist cares for.

> *"You're not just a number. You're not just another appointment. They really are taking personal care of your personal needs, you know, and that's the way I've always felt with [pharmacist name], that I matter. And I'm not sure if everybody needs that, you know, because there's different personalities and whatnot."*

What is helpful and effective for one person who may even have some similar traits or characteristics should not automatically be applied to another. These notions were expressed in 205 different ways by patients and pharmacists, indicating the '*Patient as Unique Person'* concept is an essential part of PC in care provided by pharmacists with patients.

The study findings for Objective 1 show high levels of consistency with the UMPA model, which contains several identical concepts from the seminal PC literature.

Some overlap for the '*Patient as Unique Person'* concept is also found within the PCPS, but with some caveats. The PCPS model's *'Identify patient's contextual factors'* concept is defined as a "process of identifying individual circumstances in which people

experience health and illness, including social, economic, and psychological factors that can dominate, and in many cases overshadow their healthcare needs." This meaning approximates some of the PC elements like the '*Patient as Unique Person'* seminal concept from the Medicine literature but the PCPS model does not provide a justifiable rationale for substituting an alternative concept to describe PC elements more broadly contained and robustly represented in the seminal literature.

Care Mediators & Moderators

The conceptual grouping of "Care Mediators & Moderators" consists of two superordinate concept codes: '*Information, Education, & Communication'* and '*Care Experience*.' As a reminder, "care mediators" are factors that explain why interventions generate outcomes, while "care moderators" are the conditions in which interventions influence outcomes. The "Care Mediators & Moderators" conceptual grouping contains the '*Information, Education, & Communication'* superordinate concept code, which is representative of a "mediator," and the superordinate concept code of the '*Care Experience*,' which is a "moderator."

The superordinate concept of '*Information, Education, & Communication'* comes from the seminal Public Policy PC literature and is operationally defined as "timely, comprehensible, relevant updates, education, and information to and from patients about their treatment, progress, status, and outlook that ensures that patients know how best to manage their illness to optimize their recovery and avoid future illness." This superordinate concept also sufficiently captures the meaning of the '*Disease Prevention & Health Promotion'* seminal concept from the Medical PC literature and '*Continuity & Transition'* seminal concept from the Public Policy literature. Of note, the '*Continuity &*

Transition' subordinate concept is most applicable to inpatient care settings, as mentioned in the literature review and may explain how it became a subordinate of another concept from the Public Policy tradition (i.e., '*Information, Education, and Communication'*).

The following excerpt from a pharmacist in Virginia brings the meaning of the '*Information, Education, and Communication'* superordinate concept to life through a recounting of her care with a patient struggling to manage diabetes.

> *"We had a patient that came to us with uncontrolled diabetes and not understanding the disease. He'd come into the clinic with a liter of Coca Cola, not wanting to start insulin. I was really working with him, showing him how to check blood sugar, eat healthier, go for walks. One day, he came in and said, you know what, when I don't drink my sodas, my blood sugars are in the 100s. And I'm like, well what does that tell you [laughs]?"*

The story conveys a number of efforts and actions by the pharmacist to help the patient track how the condition was impacting their body to better understand its relationship with a health behavior relevant to the successful management of their disease. A similar message is contained in the following words provided by a patient in Minnesota talking about how his pharmacist meets his needs for information and initiates follow-ups to promote his health.

> *"[Pharmacist] gives me all the information I need. You know, and she can tell you, I'm a talker, and I ask a lot of questions (laughs). I want to understand. You know, I want to understand what it is my body is going through, you know, ...I'm on not just diabetes medicine, you know, they've got me on high cholesterol and heart medicine, blood thinner, I think it was [inaudible] blood thinner, and aspirin and, I mean, I take pills and insulin. So I'm on a wide variety, I think nine different medications a day, you know, by the mouth. I always add it up. But there's a lot. There's a lot for her to monitor, and she tracks them, and*

> *she does a great job, she really does... And she always returns my calls, you know, all that kind of stuff- the service part of it...She's really actually really good at calling me and reminding me of appointments and, I haven't seen you for a while, what's going on? I mean, she just really stays up on it."*

Another characteristic this quote illustrates is that the information, education, and updates not only occur during care encounters (i.e., micro-level of care) but also outside of them via follow-ups (i.e., meso-level of care). These quotes represent two of 215 other statements from study participants speaking to the '*Information, Education, and Communication'* superordinate concept.

Although the UMPA does not specifically contain the '*Information, Education, & Communication'* superordinate concept, it does include the similar concept of '*Health Promotion*.' Wolters et al. write about this concept as, "not only treating the presented disease but considering the health and quality of life of the patient in total, now and in the future." *'Health Promotion'* appears to originate from the Medicine PC literature's seminal concept of '*Disease Prevention & Health Promotion*,' but an explanation for the altered terminology and meaning is not explained by Wolters et al. Still, the Wolters et al. concept closely approximates the '*Disease Prevention & Health Promotion*' superordinate concept from the study, which is defined as "provider actions, services (immunizations, screenings), advocacy (encouragement of self-confidence/management/health practices), education, and other methods aimed at restoring, preserving, or enhancing health in the patient."[65]

The PCPS also contains a concept that approximates the '*Disease Prevention & Health Promotion*' superordinate concept named '*Empowering patients to take responsibility for their own healthcare*.' This PCPS concept refers to the empowerment

process that includes when "pharmacists provid[e] [patients] with medication-specific education, teach mental and physical adherence strategies, and equip them with adherence tools." However, Kibicho & Owczarzak offer no explanation for why the PCPS model uses the '*Empowering patients to take responsibility for their own healthcare*' concept rather than an alternative from the seminal literature.

The other superordinate concept in the "Care Mediators and Moderators" conceptual grouping is '*Care Experience*.' This concept was operationally defined as "patient or pharmacist perceptions about the overall effectiveness, experience, and/or satisfaction from the care processes and contextual environment" and originates from the Nursing arm of the seminal PC literature. *'Care Experience'* also serves as a superordinate concept code for '*Patient's Feelings of Well-being,' 'Physical Environment,' 'Context & Time,'* and '*Care Access*.'

An excerpt illustrates the meaning of '*Care Experience'* from the study comes from a patient in Minnesota speaking about the '*Care Experience'* with their pharmacist.

> *"She's real open and takes plenty of time with me. That's what's really important to me. You know, doctors they have a quota to get every day. They've got appointments. And so does [pharmacist name], but she always seems to have a whole lot more time available for me… her honesty and openness, you know, it's just- I told her this the other day. I rarely have an appointment with her where that I didn't feel better afterwards after talking to her. You know, I don't know why. I can't pinpoint it, but I know that's the way it is. You know, and I just do, I just get the feeling she's in my corner. She's going to watch out for me, and she's good at what she does..."*

What is telling from this quote is how satisfied the patient is with being able to get into see their pharmacist when needed, having enough time to talk during the appointment, and how the experiences increase their sense of well-being. Another

statement from a different patient in Minnesota provided another example about the '*Care Experience.'*

> *"The [clinic], you may know that, and they have valet parking. It's only $6, and you drive up, they take your car. When you're ready, they bring it, and it's very timely. I think it's helping you get there. I think that's a huge thing. You don't have to worry about parking. And that's a big service that they offer because that's kind of off-putting if you don't feel good, and you have to walk a ways, and you don't know where you're going to park, and it's expensive. And they also have the people, the greeters, the people who tell you where to go. I mean, they make it easy for you. That's huge. That's a big barrier for a lot of people."*

This excerpt expands the '*Care Experience'* from the activities that take place within the care encounter involving the patient and pharmacist to outside of it at the systems and societal levels. These quotes are two of 243 statements from patients and pharmacists about the importance of the '*Care Experience'* in pharmacist care consistent with PC.

There is some overlap between the '*Care Experience'* superordinate concept from the study with the UMPA's concept of '*Context & Time*,' which is adapted from one of Stewart's seminal concepts in the Medicine literature.[127] However, the UMPA's placement of the '*Context & Time'* concept under the '*Therapeutic Relationship'* category, while the '*Health Promotion'* concept is placed under the "Patient" category, does not reflect the high level of co-occurrence between these seminal concepts found within this study.

The findings from this study are not congruent with the PCPS model, which does not contain a concept that approximates the '*Care Experience*.'

Patient-Pharmacist Relationship

The conceptual grouping of "Patient-Pharmacist Relationship" is composed of two superordinate concept codes: '*Therapeutic Alliance'* and '*Shared Power, Responsibility, & Common Ground.'*

The operational definition for the '*Therapeutic Alliance'* superordinate concept in this study is "factors that impact the development or enhancement of the personal bond between the patient and pharmacist including an intervention's estimated relevance or potency, agreement about the goals of treatment, and the cognitive and affective aspects that build a relationship." An exemplary quote from a patient in California describing the nature of her relationship with her pharmacist illustrates this meaning.

> *"The relationship between me and my pharmacist is critical. I mean she cares, honestly, she cares that I take the time to do what she suggests and that I progress in my health...I did not get the same interaction with the previous [clinician]... her ego was more a part of what was happening and my care was secondary…so it affects my attitude towards the [clinician], which then in turn affects my attitude towards my health."*

At first glance, this quote also contains elements representative of the *'Care Experience,*' but it is important to note that according to the PC literature, the '*Therapeutic Alliance'* most often manifests as expressions from the patient about trust and feelings that the provider cares for them. Another insight from this text is its consistency with UMPA's description of the concept as "the emotional bond developed between health professional and patient that allows the patient to make therapeutic progress." Still, the UMPA definition of the concept is not entirely reflective of the more comprehensive seminal definition of the *'Therapeutic Alliance'* that's used in this study

and the overarching literature. Wolters et al. also identify separate concepts of *'Building a Relationship'* (i.e., "ability to establish a relationship with a patient to have an effective consultation")[65] and *'Trust'* (i.e., "Patient's trust in the pharmacist and confidence in their expertise will help to trust the proposed treatment.")[65] that are adequately captured by the '*Therapeutic Alliance.'* Furthermore, Wolters et al. does not articulate why *'Building a Relationship'* and *'Trust'* should exist as distinct concepts and a review of the remaining 213 excerpts in this study coded with the '*Therapeutic Alliance'* did not reveal a reason either. This is especially true given the '*Therapeutic Alliance'* is often expressed by patients as trust in the pharmacist as well as feelings that the pharmacist cares for them according to the seminal PC literature.

Relatedly, there is a be a high degree of overlap between the superordinate concept of the '*Therapeutic Alliance'* and the UMPA's '*Therapeutic Relationship,*' which originates from the PCPM paradigm. A review of the seminal PCPM literature shows that Cipolle, Strand, & Morley's '*Therapeutic Relationship'* was influenced by the '*Therapeutic Alliance'* from Medicine. Both concepts refer to the bond forged from essential qualities (e.g., trust, respect, empathy, commitment, etc.) between the patient and clinician as well as a sharing of goals. However, the '*Therapeutic Relationship'* limits these goals to "optimizing the *medication experience*" whereas the *'Therapeutic Alliance'* does not. Interestingly, much of what is written within the pharmacist literature flips this relationship around, perhaps best exemplified by Wolters et al. who write, that PC and PCC are "an important part of pharmaceutical care," rather than identifying the PCPM as an approach that is consistent with PC.

For the PCPS model, the '*Therapeutic Alliance'* is approximated by a '*Sustained relationships with patients'* concept that refers to "relationships characterized by a caring attitude, responsiveness, access, and respect [that] can foster patient trust, influence adherence to treatment, and lead to better clinical results and higher patient satisfaction." Once again, Kibicho and Owczarzak do not provide a rationale for favoring this alternative concept over seminal concepts in the PC literature. It is also unclear how the services of monitoring adherence and behavioral changes, as well as depression assessments, directly engender the '*Therapeutic Alliance'* superordinate concept.

The '*Shared Power, Responsibility, & Common Ground'* superordinate concept is from the Medicine tradition of the PC literature and is operationally defined in this study as "the attitudes, actions, or other factors that reflect a sensitivity to patients' preferences for shared decision-making, communication, therapeutic goals with the provider and represents a more egalitarian approach to provider and patient relationships based on concordance rather parentalism (i.e., parent-child relationship)." This definition was also found to be an adequate superordinate code for the study's seminal concepts of '*Patient Involvement'* and '*Shared Decision Making'* from the PC Nursing literature given co-occurrence proportions of 100% and 98% respectively in the Composite dataset.

An expression of the '*Shared Power, Responsibility, & Common Ground'* superordinate concept provided by a pharmacist from Florida, who details her thought process for coming to concordance with a patient.

> *"My gut is always let's try to do what the guidelines are saying. However, I'm also realistic in that if the patient isn't going to follow with what I'm recommending to them, then what was the whole point, really, at the end of the day? So I do take into consideration what their goals are and also their perception of, you know, what these medications*

are for. Do they even understand in the first place why they're taking what they're taking? Are they taking them appropriately? All those sorts of things, and with also their goals- sometimes I'll even ask my patients, where do you want to see your health in the next month, in the next year, in the next few years, just to sort of help guide what is, again, realistic for me to be recommending to them and for them. Because, yeah, like I said, at the end of the day if my goal is I want them to live for the next I don't know, ten years, but I know that they're not going to make all of these, I don't know, ten different changes that I'm hoping to make, I'm going to start slowly and then try to hit milestones, I guess is the best way to put it, as quickly as I can or as realistic as I can."

Variations of the '*Shared Power, Responsibility, & Common Ground'* superordinate concept were mentioned 179 times by patients and pharmacists in the study. This result does not overlap well with the UMPA model, which does not depict the '*Shared Power, Responsibility, & Common Ground*' or an approximate alternative concept. That said, the UMPA model does contain a "Pharmaceutical Consultation" category containing steps for "Shared Problem Defining" and "Shared Decision Making," which could be understood as concrete operationalizations of the '*Shared Power, Responsibility, & Common Ground'* concept. Wolters et al. do not elaborate on why these operationalizations are included in the UMPA model, without corresponding theoretical concepts from the seminal literature.

In contrast, the PCPS model approximates this study's '*Shared Power, Responsibility, & Common Ground*' superordinate concept with a '*Empowering patients to take responsibility for their own healthcare*.' This PCPS concept refers to a process that enables patients to recognize their "ability to meet his or her own needs, solve his or her own problems, and mobilize personal and environmental resources to promote self-efficacy, assert control, and support his or her own health" when supported by pharmacists. Interestingly, this definition also shares some elements with the

'*Information, Education, & Communication'* superordinate concept from this study already detailed in the paragraphs above. This dual representation by the PCPS model of the superordinate concepts '*Shared Power, Responsibility, and Common Ground'* and '*Information, Education, Communication'* by a single concept contrasts with the results of this study given the respective superordinate concepts are representative of two distinct conceptual groupings.

Clinician Characteristics

Two superordinate concept codes from this study are found within the "Clinician Characteristics" conceptual grouping: '*Provider as Person'* and '*Professional Competency*.'

The superordinate concept code of '*Provider as Person'* was adapted from '*Doctor as Person'* concept in the Medicine PC literature and is operationally defined as the "personal, subjective, and relational qualities of the provider that impact patient care and healthcare practice that go beyond competency, training, or other elements that are interchangeable among providers." This adaptation was undertaken to better represent the language and practice of contemporary healthcare practice. A pharmacist from Minnesota illuminates the meaning of the '*Provider as Person'* superordinate concept by describing how she approaches care with her patients by being present with them and forming a connection.

> *"I always start the visit with what is going on, you know, I ask the patient, what is on your mind today? What do you want to make sure we talk about? And I let them set the tone for the visit. And there are visits where sometimes they might talk about the patient's sister passing away, and that's what they need in that day… I have to take care of their needs and their concerns and their questions first before I can tackle what, it's*

sounds funny to say this, but like my needs as a pharmacist, before I can say like, okay, there's a drug interaction here or your labs are off or your [hemoglobin] A1c is really high, and you're not meeting your diabetes goals. I've got to take care of what their concerns are first because they can't think about those other things until they're comfortable with that situation…I think having a good listening ear and making good eye contact, you know, all those nonverbals because usually now, you know, if you think about healthcare, a provider might walk in, may not even sit down, do the exam, and walk out. I think sitting down, taking time to look them in the eye, getting to know them personally, really talking about where they want to go is how you do that…I think the biggest thing for me is to remember to check my own biases and understand what of the interaction I'm viewing with my lens, versus maybe the patient's lens, and then not being afraid to ask when I think that's occurring. So not being afraid to say to the patient, help me understand what your side of the story is, where are you coming from, what does this make you feel, what are your thoughts on this, and trying to take the time to understand what their perspective is."

Contained within this excerpt are references to other subordinate codes from the study like '*Interpersonal Skills,' 'Sympathetic Presence,' 'Knowing Self,'* and '*Clarity of Beliefs & Values*.' The pharmacist from Minnesota gives her patients undivided attention, focuses on creating a connection with them, and consciously acknowledges her own values, beliefs, and goals so they do not interfere in caring for and with the patient. These same qualities are echoed in the following statement from one of her patients.

"*I've done some job-hopping here the last couple years that's been difficult. And so because I'm always new, I don't want to miss work, you know, and so she has, on more than one occasion, agreed to stay late to see me. She'll say, I really need to see you, so, yes, I'll stay late. I said, but don't you get off at this time? I can't get there by that time, she says, I don't care. I want to see you.… She's showed me, through her actions by taking time with me and being very patient with me, that she really does care. Most of it was just the way she talked with me…She's very kindhearted, and I have never felt judged. I mean, that's just- you know, I've shared a lot of things with her, and I just have never, you know, I don't ever feel like that. I've never felt like that. She's just doing her job and doing the best at what she can do, and I really think she cares. She's- so I'll be sad the day it comes if we part ways."*

The patient's words show how much this pharmacist's means to him because of her personal, subjective, and relational qualities. The opening sentences also convey a high level of '*Job Commitment'* by the pharmacist that is important to the patient, which is another seminal code from the Nursing PC literature contained in the superordinate concept of '*Provider as Person.'* Altogether, the '*Provider as Person'* superordinate concept code was applied 205 times to responses from study participants.

The '*Provider as Person'* superordinate concept from this study is approximated by the UMPA's '*Pharmacist as Person.'* Wolters et al. state the '*Pharmacist as Person'* concept has "two aspects. Firstly, …who the pharmacist is as a person. Secondly, pharmacists need to take care of themselves and reflect on their own feelings, values, and actions (reflective practice)." This description generally aligns well with this study's results, but omits important elements represented by the '*Interpersonal Skills'* and '*Sympathetic Presence'* concepts from the seminal Nursing literature that are better captured by the '*Provider as Person'* superordinate concept. Interestingly, the UMPA model appears to approximate these two seminal Nursing concepts with its *'Empathy*' concept, which Wolters et al. states should be given "special attention…because [it] is essential for building an effective relationship" but do not distinguish it from other qualities of the pharmacist pertinent to the development of a '*Therapeutic Alliance*.' Thus, the inclusion and placement of the '*Empathy'* concept in the UMPA model contrasts with the study's results.

The PCPS model does not contain any concepts that approximate this study's '*Provider as Person'* superordinate concept, let alone any concept in the "Clinician Characteristics" conceptual grouping as a whole.

The '*Professional Competency'* superordinate concept from this study originates from the Nursing seminal PC literature and is operationally defined as "the provider's knowledge base, skillset, and competence in relation to care used to make decisions and prioritize aspects of care." The importance of this superordinate concept was frequently expressed by pharmacists and patients. Two such examples are provided below; the first from a pharmacist in Iowa and second by a patient in California.

> *"[Pharmacists] must have a solid knowledge base. And I think I'm a firm believer that the residency training that I went through and completed certainly provided me with a lot of opportunities and practices in order to be able to conduct a thorough medication review in a lot of different settings, right off the bat."*

> *"I mean, you want your pharmacist or your doctor, to be the A student (Laughs). You know what I mean? I don't want a C doctor. I want the A doctor. So in terms of knowledge, right? I want to have confidence that the pharmacist really knows what she's talking about. And I definitely feel that with [my pharmacist], okay, based on all the things that she has been able to provide me and the explanations she has given me, you know, and the fact that the care that she's given me has resulted in my getting better. And that when we come into dips, she's able to problem solve, and we come out of the dip, and things get better, okay. So definitely the quality of the pharmacist knowledge is critical."*

These quotes are two of 69 assertions from study participants signifying that technical knowledge and skills in pharmacist practice are an essential component of PC in care provided by pharmacists with patients. However, it is notable that this concept was applied roughly a third as many times as '*Provider as Person*,' showing that the personal, subjective, and relational qualities of care either mattered more to PC in care than the physical or technical aspects or alternatively '*Professional Competency'* may stand in the way of PC in care more often than the '*Provider as Person*.' These results match well with the following two quotes from pharmacists in Washington and

Minnesota who suggest that care models viewing pharmacists as interchangeable "cogs in a wheel" will have trouble delivering PC in care with patients.

> *"I think in the ambulatory setting, it's too much of a relation-based process [for pharmacists to be interchangeable]…We are treating chronic issues in the ambulatory setting. And chronic issues require long term management. And it's those relationships and those long-term management settings that really provide the patient with the support and the quality of care that is sustainable…And if you're constantly introducing new team members to the patient, the patient can become closed off, get tired of repeating their story. They're going to think that we don't know them. They're going to be like, no, nope, this is the first time meeting you. I'm not comfortable talking to you about my depression...Where, when they've worked with me for four or five years, they can straight up walk in and say, [NAME], and then tears start running, and then I know exactly what like the next inquiry needs to do be… I do think that there is ability to ensure that there's continuity in patient care and that patients have access to the pharmacist provider when another one is on vacation. I think that there is a place for that. However, if I were a patient and I knew that I needed to come in for four or five visits on average to get my blood pressure controlled, I wouldn't want to see four or five different pharmacists. I would want to see the same one. So you've also got to think of it from the patients' perspective. What do they want? What do they find valuable? What are they willing to pay for? You know, what are they willing to do? Patients have an assigned PCP for a reason because they keep going back totally to that same PCP. So I see the same thing with the pharmacists."*

> *"I do often encourage patients to try a couple of healthcare providers before they decide that they like one because I do think that, yeah, whether we try to or not, we all bring our own bias, and we all bring our own natural attitudes into the room with us. And that works for some people, and that doesn't work for others… Usually, when I'm encouraging people to try another provider it's because of kind of what we talked about before of like they'll get the provider that just tells them what to do instead of shared decision making or things like that, so trying to find a provider that aligns with that."*

The first quote from a Washington pharmacist expresses the importance of relationships between the patient and pharmacist, given the long-term nature of care for chronic illness in the outpatient setting. These words convey that while technical

knowledge and training for pharmacists are necessarily standardized, so too are the subjective dynamics of patient-pharmacist relationships that enable pharmacist care that is valued, effective, efficient, and patient-centered. The Washington pharmacist goes on to assert that this does not mean that pharmacists cannot take vacations or have fill-ins, but that these situations have to be an exception and not common practice.

The second quote from the pharmacist from Minnesota demonstrates that pharmacists cannot be seen as interchangeable with each other because they are persons with inherent biases, characteristics, and values that can significantly impact care and outcomes. In the previous section, this same pharmacist relayed the importance of being aware of and minimizing these biases when caring for patients, but in some cases, it is better to help patients find a provider with a natural attitude and approach to care that is more compatible with the patient.

The UMPA's separation of the '*Pharmacist as Person'* and concept from the physical or technical concept components of PC in care is consistent with the results from this study. Wolters et al. represent the physical and technical aspects of pharmacist care with the '*Required Skills*' concept, stating that a "pharmacist needs to be competent, not only in pharmacotherapy but also in communication skills." The inclusion of communication skills is noticeable because it differs from this study's finding that this type of relational quality is captured by the '*Provider as Person'* superordinate concept. Furthermore, the definition for '*Required Skills'* from Wolters et al. does not identify any other skills beyond pharmacotherapy, which contrasts with other objective skills and competencies represented in this study's '*Provider as Person'* superordinate concept like finding lower-priced medication alternatives, providing public health services, and more.

As mentioned earlier, the PCPS does not contain an approximate concept for '*Professional Competency*,' which contrasts with the results produced in this study.

Care Coordination & Integration

The "Care Coordination & Integration*"* conceptual grouping from this study is occupied by a single superordinate concept code of the same name that originates from the Public Policy literature. *'Care Coordination & Integration'* superordinate concept is operationally defined as "the interactions and actions taken by providers with other members of the healthcare team to provide wrap-around care to the patient (e.g., a clearly identifiable coordinator, defined team roles, adequate caregiver availability, procedural efficiency, and good communication)." The superordinate concept also represents seven different subordinate codes from the Nursing PC literature: '*Healthful culture,' 'Effective staff relationships,' 'Innovation and Risk-taking Potential,' 'Supportive Organizational Systems,' 'Appropriate Skill Mix,' 'Shared Decision-Making System,'* and '*Team Power Sharing*.' The following text given by a pharmacist from Texas exemplifies many of these subordinate concepts.

> *"[Providers in our health system] all have access to the same health record, electronic health record. So anytime a patient sees a dietician, sees a physician, sees a community health worker, all of that gets documented into the chart, anytime they see me as well. And so we can, we all have access to look at what was discussed during that time. We sometimes will, we may talk to the physician, before or after we see the patient, about the patient. I used to do visits together with the dietician in one of the clinics I used to work at because we both spoke Spanish, so we were able to see the patient at the same time and then kind of- and then, often times, we would talk about the patient afterwards and like what our individual goals were and how those goals would mesh and how we could help each other. Sometimes there's instant messaging that goes on a lot of times between the physician and the pharmacist as well. Like if the physician is seeing a patient that I follow, and then they're in seeing*

> *patient, they may instant message me about a question in terms of care, or often times too, I may see the patient at the same time that the physician is seeing the patient at the physician's visit. And so that leads to a little bit more collaboration."*

These words articulate how the pharmacist interacts with several other members of the healthcare team to coordinate and integrate care with the patient. The healthcare team is effectively able to collaborate and communicate in a multitude of ways, sometimes being able to see the patients at the same time and other times touching base via text. The excerpt from the Texas pharmacist also implies a level of respect for each team member's value, a willingness to work together to fill information or expertise gaps, and collaborative decision making as a team using supporting organizational and technological systems. Additionally, the quote also highlights that in order to adequately care for each individual patient, care institutions must also recognize patterns of needs, preferences, and other essential factors within the populations they serve (e.g., patients who are geriatric, migrant individuals of lower socioeconomic status). Individuals sharing demographic characteristics with a population may or may not match these overarching patterns of associated needs, preferences, and goals, but this information still represents a meso-level PC care perspective to enable care integration and coordination systems. This study contained a total number of 194 excerpts that were applied with the '*Care Coordination & Integration'* superordinate concept.

The UMPA model does not contain an approximate concept for '*Care Coordination & Integration*' superordinate concept, likely due to it primary focus on concepts at the micro-level of care.

In contrast, the PCPS model's '*Collaborate with clinical and nonclinical providers to address patient needs'* concept approximates the '*Care Coordination & Integration*' superordinate concept. The PCPS concept states that collaboration and coordination among healthcare providers "ensure[s] that patients have access to the resources they need in a timely manner." Although this definition overlaps with just one aspect of the '*Care Coordination & Integration'* superordinate concept from the study's results, it should be pointed out that '*Collaborate with clinical and nonclinical providers to address patient needs*' was the only concept representing a meso-level concept of the PC construct in the entire pharmacist literature.

Macro Environment

The "Macro Environment" conceptual group consists of four superordinate concepts from the Nursing literature: '*Strategic Frameworks,' 'Strategic Leadership.' 'Workforce Developments,'* and '*Health & Social Care Policy*.' As a side note, concepts from the Public Policy tradition are not present in this conceptual grouping as might be expected. The literature review revealed two factors that may account for this. First, the four Nursing concepts were only added in the most recent version of McCormack & McCance's model in 2017 when they changed the model's name from the "Person-centred Nursing Framework" to the "Person-centred Practice Framework." Second, the eight seminal concepts from Public Policy were the creation of the Picker Institute, which was adopted by the IoM in 2001. While the latter institution remains active, the former is not and therefore has not updated its model to fit contemporary times, issues, and challenges. That being said, the seminal concepts originating out of the Public Policy

literature are by no means defunct and have been used to inform understandings and actions at the Macro level (e.g., CAHPS, CMS Star Ratings, etc.)

All of the superordinate concepts in the "Macro Environment" conceptual grouping lack subordinate codes because they did not reach the co-occurrence threshold criteria with any other concept in the study. Also, the application totals for each superordinate concept in the "Macro Environment" conceptual grouping are much lower than the other superordinate codes in the study.

'*Workforce Developments'* is operationally defined as "a multi-professional approach for meeting current and increasing demand for healthcare access, minimizing unnecessary wait times for patients, explore new models of care, and eliminating unnecessary clinical variation in following evidence-based care practice."[273] The following two excerpts from pharmacists in Virginia and Ohio, respectively, illustrate this meaning within the pharmacist care context.

> *"If I have a patient that just maybe has a more acute problem that I can't deal with, I can get them on a schedule quicker [than a physician] or same day and get them to be seen. Or I can sometimes go and describe what I think is going on with the patient and ask the doctor, can I add an antibiotic, or can I give them a Tessalon Perles prescription because they have a cough? And be able to add that to the care when they're sitting here, versus having to come back and get an appointment. And I can do referrals to other healthcare providers within our organization, to the dentist, to the behavioral health. I can get them on the schedule for another appointment. I'm doing a lot of annual wellness visits, so coordinating care for colonoscopies, mammograms, those types of things are done through annual wellness visits. Through client care management, I do lots of phone calls where they call me, and they've not been able to access a medication or have an issue with a medication, getting the prior authorization, taking care of or getting the medication switched. Right now, I'm in the middle of dealing with a patient who is supposed to have access to Humira, was supposed to be able to get it, and apparently, now can't get it. So now I've got to go back and see what happened and why can't they get it. Doing appeals on prior*

authorizations for Hepatitis C medicine when it was denied and doing multiple phone calls to now get it approved so that they now have access to the medicine."

"A lot of times, we're the first touch for the patient because they're not sure if they need to go to the doctor and we can do some triage and referral is always a viable option when we do a triage with a patient. I'll just give you an example. This is probably 15 or 20 years ago, but still stands very prominent in my mind,…one our diabetic, insulin-dependent diabetic patients, older gentleman, came into the pharmacy one day, and says, I need some cream for my leg. And I said, well, tell me what's going on. And he said, well, I've got this rash on my leg, and it's itching me a little bit. And so I ask him, what's going on and how long have you how had it, you know, the basic questions to kind of assess things. And I said, can I see it? So I go over, and he sits down, and he pulls up his leg, and it's one leg, and I am not a physician, but he had cellulitis, and I knew he had cellulitis. And, you know, diabetic, long-term diabetic, you know, healing, circulation issues, you know, that kind of thing. I said, well, you know, I think you have more than a rash. I think you should really get in to see your doctor. And he said, I don't really want to go in and go to the doctor today. And I said, no, you really need to go into your doctor today. I said, this is really important. And so I said, do you mind if I call? And so I called the physician's office and said who I had there, and I said, I'm fairly certain that he has a case of cellulitis, and it looks pretty severe. It hadn't broken through the skin yet, but it was right on the verge. And I said, he needs to see you today. And he said, send him over. And within an hour and a half, he was back to the pharmacy with an antibiotic prescription. He still wasn't happy he had to go to the doctor, but, you know, we saved a hospitalization because he was- the next, you know, if he would have waited a few more days and then went to the doctor, he probably would have been in the hospital. So it's just- his first call should have been to the doctor anyways, but he landed on our doorstep…

And then there are situations when, being in a small town, we had one doctor, and if he's out of town, and the nurse practitioner is maybe not there, the office calls us and says, so and so, we think that they have a bad cold. I'm not sure about it, you know, could you take a look at them and let them know whether they need to go into urgent care or, you know, you can give something temporarily to get them through until we can get them into the office? Or, we're booked today, can you take a look at them until tomorrow, you know, to get them through until tomorrow? And so we handle some of that overflow, and I don't want to say simple stuff, but really stuff that I- my thought process on physicians and nurse practitioners are that we can handle a lot of the basic stuff if we were allowed to do that and we were compensated for it, we could handle a lot of- you know, especially with point of care testing available

now and those kinds of things, you know, pharmacists can handle a lot of the basic things and allow the physicians to see higher acuity patients and use all the skill that they have. Because [physicians], they don't need to be treating common colds. They need to be taking care of patients that chronic disease states. That's my opinion, and I think there's a role for pharmacists to be involved in that process if we had a mechanism, you know, we're recognized as providers, a mechanism for reimbursement. I always tell people I don't get paid to not fill your prescription. If I solve a problem and don't fill your prescription, I get nothing for it. You know, I don't even get the money for the prescription, but yet we have solved, or we have averted a problem that may have cost, you know, tens of thousands of dollars, but yet, there's no mechanism or process for us to even show somebody that we did something. So I think there's an opportunity for pharmacists there."

These statements provide representative examples where a multi-professional approach to healthcare enables the pharmacist to practice at the top of their education in ways that get patients the appropriate, evidence-based care they need in a timely fashion that would be innovative for many present day pharmacist practice environments. Although the concrete care activities, system models, and settings in the examples are different, they are all consistent with the PC concepts of '*Workforce Developments*.' It is important to note that findings from the study did not indicate differences across care settings. For example, the pharmacist in Virginia practices at an FQHC that is formally integrated with other types of providers in physical and digital spaces while the pharmacist in Ohio owns and operates an independent retail pharmacy (i.e., health & personal care pharmacy). This result is consistent with the study's assumption adopted from the PPCP that PC concepts are representative across the outpatient pharmacist practice settings.

The second code for the "Macro Environment" conceptual grouping is '*Strategic Frameworks,*' which is operationally defined as "frameworks within a care institution

that places the patient at the center of organizational decision making to provide high-quality, safe care to patients, and to support workforce service delivery needs by identifying the needs of their patient, increasing the capability of their workforce, encouraging innovation, translating science and research into practice, and building financial sustainability. This includes developing a strategic plan for humanizing the healthcare system and consulting with the workforce and other key stakeholders about how to best provide care."[273] The following excerpts from pharmacists in Washington and Ohio, respectively, illustrate this meaning within the pharmacist care context.

> *"There's no way anybody, whether it's a pharmacist, physician, a nurse, a nurse practitioner, a PA [physician assistant] can have a one-to-one relationship with the patient and satisfy the highest quality and level of care that we want to provide to that patient by just having one person involved. It's just impossible. You know, it takes a- just like it takes a village, same thing. It's team-based care. We each bring different expertise to the table, different insights. And together, we provide the best care, the highest quality with the best service with the right provider, right person at the right time, by being part of the team…[For example],an old-school physician diagnoses hypertension and starts the patient on atenolol for no good reason. And when that patient comes to see us, of course, blood pressure is not controlled, and we're like, you know what? Let's change it up a bit. And we just stop the atenolol and we start the amlodipine or a better more evidence-based first line hypertension drug. And the physicians, they're not offended by that because it's part of our culture or what we've built. And they sent the patient to us for us to manage the medications to get that patient to a goal. Or it is the physician started the patient on sertraline for depression. And the patient comes in, sees me next, maybe eight weeks later. I apply PHQ-9, GAD-7, some improvement but not to the outcome or the clinical outcome that we're looking at. Tolerating meds I'll start to titrate it up and have those discussions with the patient. So I mean, that's what [PC] is, everybody contributing to the top of their license. If I defer everything for the physician to execute the interventions on, we're going to wait forever. They're going to get overwhelmed. It's going to feel lonely. You know, they're going to feel like, oh, so I'm always the final decision-maker? You know, and so for the pharmacist provider to really demonstrate their abilities at the top of their license, they would be doing that."*

"Over the years, I have become a real student of workflow just because I've remodeled my pharmacy three times in order to get to what I really wanted… The technicians do intake, and they do all the technical stuff that does not require a pharmacist to do. And then they present the finished product to me, and then I do the DUR and the final check and the patient counseling or those meetings with each patient. So we do a sit-down face-to-face with every single patient whether they're picking up something for the 50th time or they're picking up something for the first time, we have an interaction with them...

It's way better than what most pharmacies offer, and it gives us the opportunity to do more in-depth things if we need to in this sit-down format. But, yes, this is what our patients expect. They know it's going to happen, and they- I've had a lot of pharmacists say, well, why would a patient wait? And I said, because they all know they're going to get to see me. They're going to get face time with the pharmacist regardless of what they're picking up or what they're doing. They're always going to get a few moments with the pharmacist. And those few moments are an opportunity for them to ask questions or have any concerns they have addressed, and it, many times, there's no issue, but a lot of times, we will find little things that- this morning, I worked the first two hours this morning at the pharmacy, and we sat down with a young girl, and she had seen her neurologist, and he changed one of her meds. We asked a question, were you expecting a change to your medication? And she said, no, the doctor didn't say anything. And same medication, but different frequency, and so we called the physician's office and they said, yes, his notes did say to decrease that from twice a day to once a day. Well, I can guarantee you what would have happened had we not made that phone call and talked to the patient. They would have gone home and just kept taking it twice a day, showed back up at the pharmacy in 15 days needing more, and then they would have realized, that, oh, the directions did change, and I didn't even see it. So we prevented, again, an inconvenience to the patient, to the doctor, trying to figure out how we would have solved that problem, extra expense for the patient, there are myriad of things, by interacting with the patient and then making a phone call and then solving the problem."

The team-based care framework articulated by these pharmacists shows a level of confidence, respect, and trust among team members (including the patient) that produces care that is greater than the sum of its parts. The patient experiences care that is higher in quality, more sustainable, safer, and involves more touchpoints because of a conducive organizational framework and culture. The quote also infers elements of continuous

quality improvement that is responsive to patient-centered priorities, preferences, and goals.

The third code in the "Macro Environment" conceptual group is '*Strategic Leadership*,' which is operationally defined as "an adaptive and 'cascade' approach to institutional leadership where all levels of the organizational structure and culture participate in the development and creation of necessary skills, energy, and impetus to meet the 'wicked problems' faced in modern healthcare."[273] The following excerpts from pharmacists in Florida and Virginia, respectively, illustrate this meaning within the pharmacist care context.

> *"A lot of our patients were going to the hospital because of heart failure and so I said to the other practitioners I work with I would be happy to come up with sort of like an embedded heart failure clinic at the primary care office, which luckily, they were happy for me to be doing. So the first six months that we had this, the patients would see me and a physician or nurse practitioner... it was just based on the patients' schedules and also the practitioners' schedules…we saw somewhere between 10 and 15 patients, these are people who were going to the hospital all the time. They have still yet to go back to the hospital, which- so it turned out to be like such an awesome thing."*

> *"[Part of PC is] being willing- I think it's a lot of leading from where you stand. And a lot of it is being willing to help where it's needed, right? So it's being visible in the clinic, you're available to answer questions, you're available to help with patients, and you step up and say, you know, I can help with that. I'll help with that. But you're demonstrating being a part of the team, right? So if it's really bogged down out front and I'm not doing anything, I may help triage patients and room a patient or doing prior authorizations or, you know, the nurses are bogged down,…I'll go ahead and schedule the appointment as we finish our visit. And then they don't have to do that. All they have to do is print the card for the patient. So it's being- it's showing your value as part of the team because there's so many different things you can do as part of a team. I think that's a lot of where how I sort of got involved when you see a problem in the clinic, you help come up with a solution. And so it's being- it's problem-solving."*

The excerpts show leadership by both pharmacists, who identified problems and marshaled the human and technical resources for improving care on the institutional level for a subgroup of patients. The first quote provides an example of this in the development of a program over time, while the second quote describes a more day-to-day leadership action that meets patient needs. Neither case was in response to a top-down mandate from the institution's administration, but individuals who took the initiative, and just as importantly, had colleagues who also saw the issue affecting patients and were receptive to pharmacist's actions. Both stories also show a willingness among all stakeholders to do something different to benefit patients.

The fourth and final concept from the "Marco Environment" conceptual grouping is '*Health & Social Care Policy*,' which is operationally defined as "factors like political imperatives, social determinants of health on healthcare delivery, emerging disease processes, advances in science and technology, and characteristics of the population being served that influence the institution and patient care."[273] The following excerpt from a pharmacist in Minnesota represents one of these factors and its impact on PC in care provided by the pharmacist with patients.

> *"[Pharmacists] have two [reimbursement] models we can follow, right? Either we bill absolutely no one and see absolutely everybody…Or we charge people, and then we can only see the people we have the mechanism to bill. And so I always feel bad about the disparity that we cause in people that do have access to this resource and people that don't. I think for the people, that we are able to see, we are able to help with access to medications, and I feel like I am able to make some strides there with getting them the medications that they need, but there is still the disparity that we see often, that we can't overcome with some people that can afford high-cost medications and the people that can't. So we talk a lot about insulin because there are patients where we get them on medications that we feel like probably are better things, the insulin*

> *analogs, like Lantus, or a Levemir, or Tresiba, and then there are people who just can't afford those because of high deductibles, and then we put them on NPH, not that it's a terrible insulin, and it's better than nothing, but it doesn't work as seamlessly, and it's not as easy to take. And so we definitely try to decrease the health disparities, I think, with how they're meeting their goals. So we still are up against a lot of barriers with the ability to afford certain medications or the ability to even act as a pharmacist."*

This example shows how a patient's social determinants of health can positively or negatively impact access to care that they need and prefer. The excerpt also refers to patient access to the insulin formulations that would enable them to manage their diabetes better, and is a benchmark example of how healthcare policy on drug pricing and procurement impacts PCC. This concern even extends to pricing and availability of more standard insulin and insulin supplies for patients who are uninsured or can't afford them, which can lead to insulin rationing that increases the risk of preventable death.

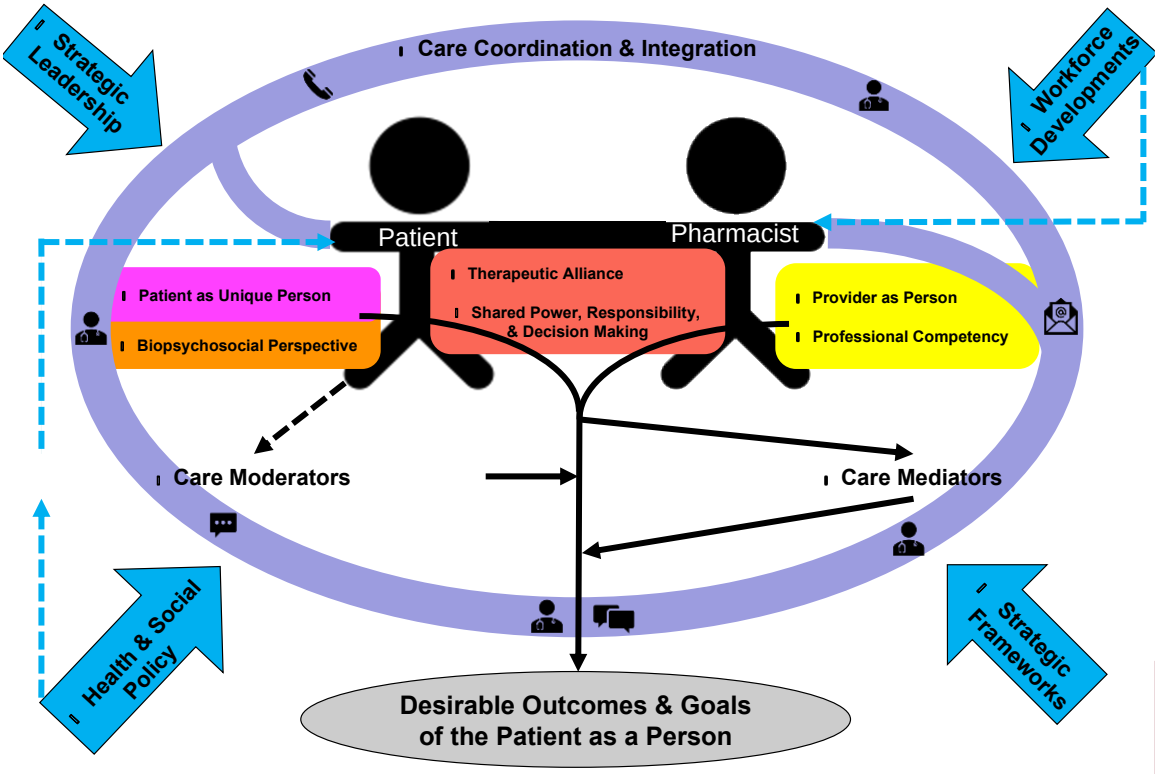
It should be noted that neither the superordinate PC concept of 'Health & Social Policy' nor the other three "Macro Environment" PC superordinate concepts are approximated within the UMPA or PCPS.

The Team-based Outpatient Pharmacist Practice for Patient-Centeredness (TOPPP) Model

The seventh and final step of the data analysis for Objective 1 was the assembly of a conceptual PC model blending the study's data analysis with the PC literature in Pharmacy and healthcare in general. The result for this step is depicted in Figure 27 and referred to as the 'Team-based Outpatient Pharmacist Practice Model for Patient-Centeredness' (TOPPP) model.

The TOPPP model spatially arranges the 13 superordinate PC concepts and seven conceptual groupings from study results using the organizational models in the PC literature that best fit in terms of structure (i.e., process vs. systems orientation), levels (i.e., micro-, meso-, macro-), approach (i.e., deductive vs. inductive), care setting (i.e., outpatient vs. inpatient), outcomes (i.e., clinical, patient-reported), and language (i.e., patient-centered vs. person-centered). Influences and elements from all three seminal PC traditions (i.e., Medicine, Nursing, and Public Policy) are represented in the TOPPP model's superordinate concepts and arrangement.

Figure 27. The "Team-based Outpatient Pharmacist Practice for Patient-Centeredness" (TOPPP) Model



First, the TOPPP model represents a modified "system-oriented" structure. As described in the literature review, a system-oriented structure consists of a step-wise

progression of conceptual layers for organizing and delivering care that must be sequentially satisfied to produce PC. This contrasts with a process-oriented structure, which is a non-ordinal list of elements or principles essential to achieving PC. The TOPPP model's directional elements represented by the arrows leading to the desirable outcomes and goals of the patient as a person is more reflective of a system-oriented approach but is not entirely sequential given it lacks a clear starting point as well as indirect factor pathways (i.e., dotted arrows).

Second, the TOPPP model contains concepts at the micro-, meso-, and macro-levels of care that draw from different influences in the PC literature. The micro-level of care incorporates the UMPA's organization, which was highly aligned with the study's results. However, the TOPPP model has some different component concepts, which will be detailed in the Chapter 5. Additionally, the TOPPP model incorporates aspects from McCormack and McCance's PCPF and Rathert's modified Donabedian model to connect the Micro-level with the Meso-level, Macro-level, and "Desirable health outcomes and goals."

Third, the TOPPP model is the product of this study's Directed Content Analysis approach, a deductive process where concepts were drawn from the seminal literature and mapped onto the observations found in the data.

Fourth, the TOPPP model was developed and pertained to the outpatient setting of care, in large part due to given the assumptions and data sources used to develop the model.

Fifth, the TOPPP model is focused on explaining both clinical and patient-reported outcomes of care. This is demonstrated by the presence of superordinate concepts originating from all three PC professional traditions represented in this study.

Sixth, the TOPPP model uses "Patient-centered" language to be consistent with the research and conversation taking place in pharmacy and healthcare practice in the United States.

Finally, a more detailed description and corresponding rationale for the inclusion, re-arrangement, and consolidation of concepts from the UMPA, PCPS, and overarching healthcare literature are provided in Chapter 5.

4.2 Results for Objective 2

The second objective of this doctoral thesis was to describe, interpret, and compare patient preferences and expectations of PC in care provided by pharmacists with patients. This was accomplished by following the coding protocols and data analysis plan detailed in Chapter 3 which consisted of three successive steps.

For Step 1, the 439 excerpts in the study were organized into seven sub-datasets corresponding to the conceptual groupings produced in Objective 1. The sub-datasets were not mutually exclusive, with several excerpts present in more than one conceptual grouping. For example, an excerpt coded with the concepts of '*Patient as Unique Person,' 'Professional Competency,'* and '*Care Experience'* would be found in the sub-datasets of "Patient-Pharmacist Relationship," "Clinician Characteristics," and "Care Mediators & Moderators," respectively.

For Step 2, characteristics of preferences and expectations related to care provided by pharmacists with patients were identified on an excerpt by excerpt basis within each

respective sub-dataset. These characteristics were compared within and across each sub-dataset to reveal archetypal patterns useful for generating new concept codes. New codes were needed for Objective 2 because existing PC concepts from the seminal and pharmacist literature only highlighted important areas "where" PC preferences and expectations existed, but not exactly "what" they were.

The third and final step analyzed data and produced five distinguishable characteristics distinguishing three general PC relationship archetypes. The five characteristics were the "Nature of the Relationship," "Care Customization," "Care Longevity," "Communication Type," & "Source of Value." Variations in each of these characteristics were sortable into one of three overarching archetypes: '*Customer,' 'Client,'* and '*Partne*r' that were inductively generated and imported into the Directed Content Analysis coding scheme.

Table 16 summarizes the specific characteristics associated with each archetype, which are further described, interpreted, and compared using exemplary excerpts from the study participants in the sections below.

Table 16. Factors of PC Preferences & Expectations for Three Patient-Pharmacist Care Relationship Archetypes: 'Partner,' 'Client,' & 'Customer'

PC Preferences & Expectation Factors	Partner	Client	Customer
Nature of the Relationship & Predominant Locus of Control	Concordant & Shared Locus of Control	Fiduciary & Pharmacist Locus of Control	Transactional & Patient Locus of Control
Care Customization	Unique	Specialized & Individualized	Standard & Customary
Care Longevity	Enduring	Periodic	Indefinite
Communication Type	Dialogue	Discussion	Directions
Source of Value	Co-created Experience	Provider Expertise	Patient Convenience

Partner Archetype of Patient-Pharmacist Care Relationships

The first conceptual archetype of patient-pharmacist care relationships for PC preferences and expectations is '*Partner*' and can be best understood by examining its characteristics along the five factors that informed its development.

The first of these factors pertain to the preferences and expectations around the "Nature of Relationship" between the patient and pharmacist. Study participant statements consistent with this archetype expressed a desire for concordance and a shared locus of control. Similar to PC, the definition of concordance in the healthcare literature is difficult to operationalize and varies across health professions.[274] In the pharmacist context, concordance has been described as a joint commitment by the patient and pharmacist to engage and share control in finding common ground that benefits the patient.[275] Each of these attributes can be found in the excerpt below provided by a Washington pharmacist describing her approach to partnership with patients.

"Let's say a patient's blood pressure is clearly elevated, and they are adamant that they don't want to start meds. And from a medical standpoint, medications make sense. We're going to decrease, you know, morbidity and mortality. We're going to save your kidneys. We're going to save your eyes. We're going to, you know, prevent heart attack and stroke like so many things come with the benefits of controlling blood pressure.

But a patient says, I don't want to take drugs. I don't believe in them. Like tell me what else to do. And so I think it's extremely important, again, listening to the patient. Meet them where they are at. Understand why they are against medications- like what's at the root of it? Do they have a neighbor or family member that had a really bad side effect to a blood pressure medication and has been talking bad about it?…Maybe they had a family member that went on blood pressure medication, was on three meds, and still had a heart attack, and so they don't see the point in it. Or maybe they just, maybe they can't afford it. Maybe they don't believe in modern medication management, and they want something more natural. So understanding the why and don't just say, okay, you don't want to be on meds…

So usually, what I do in those instances is like, okay, so say medications are off the table, you know, and you don't want them. What are your thoughts on what else we can do to manage your blood pressure? And just ask the patient, like, what do you think we should do? What do you feel are the appropriate next steps?... And then I follow it up with, okay, now, if you come back in four weeks and if your blood pressure has not changed, it's not getting better, at that point, what are your feelings about initiating a low dose of a medication? Continue with the lifestyle. It will just be a bridge. It's not permanent. But let's start you on the medication, get your blood pressure down, as you continue to sustain those lifestyle changes, we can then, you know, after a month or to, go off the medication and see how it looks."

The pharmacist describes how she shares control and works jointly with the patient towards a goal of therapy to reduce health risks without any medications. This demonstrates a determination and focus by the pharmacist to meld perspectives with the patients, which opens the door for building a relationship, coordinated actions, and perhaps the patient even being open to taking medications in the future if the patient's goals change.

This excerpt also contains an example of the "Communication Type" found in the *'Partner'* archetype code: "Dialogue." "Dialogue" refers to communication consisting of cooperative interaction and generative exploration of one another's lived experience and viewpoints, which often takes adequate amounts of time to occur. This is made clear in another statement made by a patient in Minnesota describing what they have come to expect from their pharmacist.

> *"[Pharmacist name] always seems to have a whole lot more time available for me to ask questions because I like a lot of education about- especially if things change. I have a progressive illness, diabetes, and so things do change. My activity level changes, and my diet has changed off and on. Different activities create different problems for a lot of the medication I'm on. You know, so we always talk back and forth about how- what might be causing this particular side effect or that side effect and, you know, either taking something away or lowering the dosage or increasing the dosage, she's real open and honest about that, and she gives me a lot of information."*

The past two excerpts illustrate a "back and forth" between the pharmacist and patient that is "open and honest" and implies that as much time is invested in exploring and better realizing the contributions of the other party as arriving at options or recommendations. This highlights a sufficient amount of time and a conducive space is required for "Dialogue." These prerequisites are the basis for a common concern about PCC in general that it takes too much time. However, the literature suggests that this concern is empirically unsubstantiated and that care with patients preferring a "Dialogue" with their provider is actually more efficient in terms of time and cost. This is because PCC better identifies and supports the fulfillment of priorities and goals that are complex in nature.[20]

The duration of each care encounter is just one of the temporal features noticeable from study participant quotes where the '*Partner*' archetype was applied. Another common thread was an enduring relationship between the patient and pharmacist built on years of interaction through periods of both successful and challenging management of their health. This characteristic pertains to the "Longevity of Care" factor and is illustrated in the following quote from a patient in Minnesota describing the lengths they go to keep seeing their pharmacist.

> *"I [come] from out of town, and it's still a little bit of a drive to get to her; Hour, hour and a half but I don't care... That's where I'm going. I've been there for a good many years, and I like going there, and that's it. So I'll make the drive."*

The patient from this text could have received the same billable service from a different pharmacist who was more locationally convenient, but it was worth it to the patient to drive further to continue their long-tenured partnership with "their" pharmacist. At least one reason repeatedly found among study participant statements coded with the '*Partner*' archetype that could explain the enduring longevity is that patients feel the care they receive from "their" pharmacist is unique and even irreplaceable. This sentiment is verbalized in the text below by an Iowa pharmacist describing how some patients at their practice setting prefer to have care experiences only with a specific pharmacist on staff.

> *"[Pharmacist name] has had some very specific, unique experiences with some patients that we have here, and because of that, they trust him. And, you know, he's done thing for them, maybe that's come in after hours, maybe- we had a patient with the recent drug recalls, and we had a patient call back in because he's actually recently been diagnosed with pancreatic cancer. And he wanted to speak with [NAME] directly because [NAME] had, in the past, spent quite a bit of time researching exactly what was found in those recalled valsartan tablets and what the*

implications were. And I think in knowing the depth that he has taken to do literature searches, sometimes that's what develops those relationships."

This captures the unique qualities for the "Care Customization" factor found in the '*Partner'* archetype. Patients that display care preferences at the level of partnership have found and value a level of tailoring they do not think they can get anywhere else. This is exemplified in the comments of a Washington pharmacist describing a previous encounter they had with one of their patients.

"I have been working with [a patient] for about four years. And she has chronic abdominal pain and is getting ready to go through an intestinal transplant. And she's on TPN right now because she's having major absorption issues. And the patient's perspective is, she has surgery in the three weeks. And she is asking to increase her opioid dose by 50% for the three weeks leading up to surgery. And her perspective is, you know what, I don't know what's going to happen at surgery. I might be in the hospital for several months… And because of all the negative unknowns of this surgery, increasing my opioid dose by just over 50% makes sense because I should be able to enjoy life, prior to that surgery, to its fullest over these next three weeks…She's in my office just crying and telling me all this and how she wants to spend time with her family and her husband, and her mom was coming to town. And she doesn't want to be miserable prior to the surgery.

And so, you know, an easy answer [for me to give her] could have been, okay, yeah. Definitely, that makes sense. Let's do that [increase opioid dose by 50%]. Also an easy answer [for me to give her] would have been like, absolutely not. You know, I'm not going to increase your dose…say like, quote, unquote, policy for the clinic and say, no, we don't increase doses. Or say, yes, you're crying. This is clearly very important and emotional to you.

But instead, okay, well let's talk about your past surgery experiences because I'm aware that this is her 12th surgery. And three surgeries ago, which was about three years ago, she was hospitalized for almost six months. And knowing that, and we spent about 20 minutes talking about, essentially, an element of PTSD that she has that she associates any inpatient stay with extremely negative outcomes, a horrible experience, mismanagement by inpatient teams and medical residents she refuses to have. And so once we dig into those experiences and how emotionally she's tied to it, then we tie that back to her setting

> *these negative expectations of the upcoming experience, even though it's at a different hospital, different team, great literature in terms of outcomes. The surgeon is extremely optimistic. And you start to tie in, then, the emotions to the elevation of pain. And that starts to tie back to medical necessities for opioid dose increases and how anticipating- or an upcoming surgery and anticipating struggles afterwards are not a reason to increase doses now."*

Another factor tangentially related to expressed preferences and expectations for highly customized care were comments that the "Source of Value" for the patient was the "Co-created Experience" with the pharmacist. Value co-creation refers to the creation of value through the interaction between the provider and recipient of a service.[276] Put another way, patients can receive the customized care quantities and qualities they prefer and need through a collaborative process that simultaneously informs and enables the pharmacist to meet these expectations, which was exemplified in the quote above.

There are two aspects of value co-creation, which are "value-in-use" and "co-production."[277] In the context of this study, "value-in-use" refers to a co-equal collaborative process between the patient and pharmacist to develop a care plan that optimally addresses the priorities, goals, preferences for care that often takes place at the micro-level of care (i.e., patient-pharmacist care encounter). "Co-production" refers to the systematization of the meso- and macro-levels of care that are conducive for implementing and executing the specified "value-in-use."

The preference and expectation for a "Co-created Experience" in the '*Partner*' archetype is also marked by the patient and pharmacist's mutual respect and trust for each other's expertise; namely, the patient's expertise in their own life (e.g., motivators, resources, challenges, etc.) and the pharmacist's expertise in navigating the healthcare system and optimizing medications for safety, effectiveness, and accessibility. An effect

of this co-created partnership is the value it produces for its participants, which is feelings of a shared and "Co-created Experience." A patient from Minnesota expresses this well in the excerpt below.

> *"[Pharmacist name] has been there for me more than once. I mean, she's just a real, you know, she's been a blessing. And that's what's most important to me…I have always felt like she was in my corner, even more so than my doctor, you know, because she has more time. She seems to have more time available…I always felt like I wasn't just a customer or a client or a patient, she really does care. You know, that's the feeling I come away with all the time... And that's what I mean by I really do believe I'm not just a patient. We have built a relationship. She's important to me, and she keeps me in-check or else. I've got to do a lot of the work myself, of course, because it is me that's taking the medicine and me that's exercising or not. And my diet is my diet. But, you know, she's just- I know I can call her anytime, and she'll call me back."*

As mentioned in the paragraph preceding this quote, the patient receives value from having a pharmacist that is invested, sharing, and a co-creator of their experience which encompasses the "Source of Value" factor of the '*Partner*' archetype. This "Co-created Experience" was expressed in different ways by different study participants but was consistently apparent throughout excerpts with the '*Partner*' archetype. Another example is provided below by a pharmacist in Virginia describing why she thinks some patients have such preferences in their care.

> *"I've been here eight years…, the longest of anybody that's in our medical clinic now. And so [the patients know] me [and I've seen] they do get a little upset when they're having to continue to switch providers..., [the patients are like] 'they don't know me.' You know, and [the patients] have to start all over again. You know, I think any good clinician can provide the good care, but it does take some time to build that rapport…And just the joy of being able to go from an [hemoglobin] A1c of 13 to 6 and celebrate that [with your provider], right, and be able to have made that....if you continue to go to that same person, you're*

going to build some of that rapport, and you might feel more comfortable telling them information that you might not have told [another provider].”

This quote and ones preceding it represent one or more characteristics that formed a pattern of care preferences and expectations across five factors related to Objective 2. The next section will reveal alternative preferences and expectations across the five factors for the ‘*Client*’ archetype.

Client Archetype of Patient-Pharmacist Care Relationships

The ‘*Client*’ archetype of patient-pharmacist care relationships for PC preferences and expectations of care is the second concept code of Objective 2 and will be described along the five factors previously introduced in this study.

The preferences and expectations for the “Nature of Relationship” in care provided by pharmacists with patients encompassing the ‘*Client’* archetype was consistent with a fiduciary ethos. The word fiduciary refers to an individual who is duty-bound to act or advise in ways that maximize benefits and reduce harm for someone they represent. Generally, persons seeking a fiduciary face circumstances where they feel vulnerable or ill-equipped to manage without the technical expertise, skill, or resources of the fiduciary. Although pharmacists always have a fiduciary duty to their patients, this code reflects when a patient’s predominant preference and expectation for the relationship with a pharmacist is that they are duty-bound to serve the interests of the patient. This aspect is expressed in the following statement given by a pharmacist in North Carolina.

> *"It matters that [patients] perceive I'm looking out for their best interests, versus trying to sell them something or make a switch of medications only because it benefits someone else, but not necessarily them. I know that patients are beginning to understand more of like formulary changes and how some are more linked to profit than others or more linked to maybe a requirement, a formulary when sometimes it's not in their best interest. And they want to know that there is just a genuine attempt to sit down with them, talk about what's good for them and have that trust."*

The pharmacist expresses the importance of putting the patient's interests above all else when practicing, such as when recommending a service or selecting a drug product to fill a prescription. Of course, this overarching ethic is a core tenet of the "Oath of a Pharmacist"[278] and must be present in all patient care, but this expectation was especially emphasized in study text coded with the '*Client*' archetype compared to those of the '*Partner*' archetype or '*Customer'* archetype. There are at least a couple of potential explanations for this. The fiduciary attribute might be less visibly expressed in the '*Partner*' archetype because it is perceived as a self-evident component, that does not require as frequent or in-depth expression. For the '*Customer'* archetype, other elements of the relationship may have been perceived as a more important or relevant underlying consideration behind a patient's care preferences and expectations (N.B., this will be explored more in the '*Customer'* archetype section).

The fiduciary nature of the care preferences and expectations in the '*Client*' archetype was also apparent in how patients and pharmacists expressed the responsibility and power dynamics of encounters. The following excerpt describes how a pharmacist in Texas approaches care with patients who have these preferences and expectations.

> *"I would love it if everybody I saw got to [their clinical] goal. I recognize that that's probably not going to happen for a large part of*

> *them. And some of that may be it just is not what the patient wants, and that's okay. What my goal is, I think, is to make sure that these patients understand what the consequences of the disease are, what some of the consequences of the medications are as well, and the treatment, so that they can make an informed decision in terms of how they want to proceed… I can deal with, hey, I want to see where I'm at in two weeks or four weeks or whatever time frame. And let's pick it up from there. That's fine."*

The power and responsibility dynamics exhibited in this statement are such that the pharmacist, who is the expert in managing hypertension with medications, feels responsible for supporting the patient to make an informed decision. In this way, the locus of control in the relationship leans more toward the pharmacist. At the same time, the pharmacist recognizes the patient is not seeking concordance or a "Co-created Experience" and just wants the pharmacist's specialized knowledge tailored to their individual situation. The patient's responsibility in this scenario is to be transparent in their goals and information they provide, but they also hold the power to independently make decisions to follow or not follow the pharmacist recommendations. In this way, the fiduciary "Nature of the Relationship" is distinguishable from a concordant one in the different levels of investment and commitment on the part of the pharmacist and patient, respectively.

It is also important to note that a fiduciary relationship is not necessarily parentalistic because it can involve transparent and informed consent on the part of both the patient and pharmacist. That being said, even though not all fiduciary relationships are parentalistic, all parentalistic relationships in healthcare should by definition be fiduciary assuming the provider is doing what they think is best for the patient.

Another factor displayed in the previous excerpt is the "Communication Type" most often utilized by pharmacists and patients for the '*Client*' archetype, which for this study will be labeled "Discussion." This term refers to exchanges of information or viewpoints between patients and pharmacists that are narrowly revolved around arriving at an array of options or recommendations for consideration. The goal of "Discussion" is to have an informed patient, aware of their options, and even the pharmacists' recommendations. This is exemplified in the text below provided by a pharmacist in Iowa working with a patient expressing preferences and expectations consistent with the '*Client*' archetype.

> "*I had one guy that was, he's a statistician by nature. And so we spent a great deal of time giving him the actual data that showed the improved cardiovascular outcomes with statin therapy. Usually, I don't inundate people with numbers, be he got a lot of that. Well, we haven't got him on statin therapy yet. But, you know, it was well received by him. I will say that. It was a very positive engagement with the patient because he was listening. He took the primary literature. He was going to read it and look through it. We did follow up with him, you know, the next month when he was in, and he definitely didn't dispute the information.*"

As seen in this text, the communication differs from "Dialogue" in that there is neither an expectation nor preferences that the pharmacist and patient gain an experiential sense of each other's perspectives to come to an agreement. Furthermore, the encounter focuses on the pharmacist providing technical expertise in a way that is attuned to the patient's wants and needs. The attributes of specialization and individualizing care is what distinguishes the '*Client*' archetype for the "Care Customization" factor. This approach takes what is known about a few key characteristics of an individual, condition, or subpopulation and uses this information to provide care. This level of customization is

not unique or irreplaceable like the '*Partner*' archetype, but goes beyond a one-size-fits-all approach. This is well represented in the following quote shared by a patient from Texas describing how his pharmacist uses specialized knowledge of warfarin dosing to individualize their dosing on the drug.

> *"If my INR [international normalized ratio] reading isn't as good, then [the pharmacist] asks questions as to what it was that I had done differently that could have led to it being not good. Did I miss any doses, or did I take in extra vitamin K or eat more or different kind of green, leafy vegetables or alcohol? Did I have any drinks, or did I drink recently, last night or today or something, you know. Yeah, so that's pretty much it. And then he reassesses the situation from my answers that I give…They give me a list of all of the things that have vitamin K…and go over different things on there that I like, and then they'll discuss with me about it, you know, how high it is in vitamin K and what have you. Oh, yeah, that one there, it's not that high. Yeah, you can eat as much of that one as you want, you know, and what have you.*
>
> *I've had other doctors… and they're just saying, 'yeah, well, you know, you can take that. And my patients- I have other patients. Oh, they love that, and it works well.' And if I'm saying it don't work well for me, they're constantly telling me how all their other patients like it and what it does for them or their own personal self that they take it…Okay. We're all different. I'm me. So talk to me, and let's try to get to a solution to help me."*

The text demonstrates that the patient expects and prefers care from the pharmacist to be informed by the patient's lifestyle choices and what works well for them, but not necessarily to the level constituted by a partnership. Similarly, excerpts coded with the '*Client*' archetype described "Care Longevity" as shorter and more periodic than those statements coded with the '*Partner*' archetype. This is shown in the statement below taken from the same patient from Texas detailing when he first started seeing a pharmacist, how often he has encounters with his pharmacist, and for how long the sessions last.

> *"I originally had a blood clot in my right jugular vein, which was a deep vein thrombosis, pulmonary, and that was November of 2012. And so after I was hospitalized and then got out, then they assigned me to a pharmacist, which I had one previously before the one right now, and I think I had him for two or three years...then they referred me to [pharmacist name], my present one, and he took over. And things have just gone from there. I usually go and see him on a good report, anywhere from two to four weeks later, with a bad report, then a week to two weeks later…The appointments usually last about ten to fifteen minutes, unless I get to talking more, but we discuss my intake of vitamin K and green, leafy vegetables, alcohol consumption or whether I'm smoking or not and my eating habits, exercise programs, and I think that's pretty much it."*

This quote is representative of attributes for "Care Longevity" found within the '*Client'* archetype, namely that care is viewed as recurrent rather than continuous, depending on what the patient hopes to achieve. Furthermore, the length of the visit is shorter given a narrower focus than what would take place in a partnership.

The attribute that differentiates the '*Client'* archetype in the final factor of "Source of Value" is trust in the provider's expertise. This characteristic was best expressed by a Washington pharmacist articulating the expected value of several patients.

> *"For some patients, they don't want [shared decision making]…[some] patients know that they're coming to me for pain management and so their expectations are that I'm going to be knowledgeable and be able to discuss with them the different treatment types that involve drugs that are related to pain management. So that kind of comes back to the confidence and the expectation that I'm educated and knowledgeable to, again, meet their needs for why they were referred to me."*

This quote illustrates that the value core of the '*Client*' archetype is trust; trust that the pharmacist is competent, able to relay them decisions about their options in an understandable way, and willing to help them to better manage their problem than they could alone.

It should also be noted that the previous excerpt was given by a pharmacist from Washington, who also provided an exemplary excerpt that was coded under the *'Partner'* archetype. This is one of several examples where the same patient or pharmacist identified care preferences or expectations from multiple archetypes for a variety of reasons. Similarly, some patients expressed care preferences representative of the '*Partner*' archetype from their pharmacist, but expectations more consistent with a '*Client*' archetype for their physician or vice versa. Thus, results indicated that many pharmacists in the study adapted the archetypal attributes of their care based on their perceptions of patient care preferences and expectations.

Additionally, several patients articulated they had held different care preferences and expectations at different stages of their life or depending on factors like their health status and life circumstances. These nuances demonstrate that archetypes shouldn't be used to categorize patients, rather they should serve as moldable starting points to better understand and fulfill patient care preferences and expectations. The next section will describe additional preferences and expectations across the five factors that are most associated with the '*Customer*' archetype.

Customer Archetype of Patient-Pharmacist Care Relationships

The third and final classification representing PC preferences and expectations for patient-pharmacist care relationships is the '*Customer'* archetype.

The descriptor best-representing study participant statements for the "Nature of Relationship" factor for excerpts coded with the '*Customer*' archetype is transactional with a locus of control that leans towards the patient. In a transactional relationship, there is a buyer and seller with the former exchanging currency in return for a good or

service from the latter. Of course, many pharmacy transactions often involve third-parties or even fourth-parties, but for the intents and purposes of this study the patient will represent the buyer and the pharmacist represent the seller. The excerpt below from a patient in Iowa discussing what he prefers and expects in his care from a pharmacist is a good example of the "Nature of Relationship" for the '*Customer*' archetype.

> *"I've got multiple doctors for multiple reasons and each of them are prescribing something, so it's always a concern of mine that what I'm taking is compatible with what I'm going to be receiving, a new prescription or any change in it...It's just reassuring to me to know that [the pharmacists] are checking it… They call me when the prescriptions are ready. And so I really haven't had that much discussion with them on an ongoing basis, other than to pick up the prescriptions…I don't consider talking with my pharmacist as I'm going through various changes in my healthcare. I'm reliant on my various physicians to coordinate that with one another. So I don't view the pharmacist as being involved in decision-making. So I just view them as being there to be reassuring that there is proper communication or something is not being overlooked."*

This text demonstrates how the patient's expectation for the pharmacist in their care is limited to preparing their prescriptions and double-checking for compatibility among their medication regimen. The patient does not want the pharmacist to play an active role in the decision-making processes where individualization, specialization, or co-creation is needed. The statement also reflects that the patient's and pharmacist's power and responsibilities in this relationship are fairly independent of one another. This is also evident from the following statement given by a California pharmacist describing how the patient's preferences and expectations informs the care she provides.

> *"They just wanted to see me for five minutes, and, you know, and in and out… we can't make that connection with five-minute visits. You know what I'm saying? … they say, oh, 'I just need a help- you know getting*

> *my refills. Or I just need to get a different medication because this one is expensive. That's all I need from you.' So, you know [the patient] sharing that expectation, I think it's very crucial in the initial visit. Even like in the beginning of your visit making sure that I give them what they need, so, you know, I do my best to meet their needs and expectation. And I also share my expectation, what I want from them."*

This statement reflects the patient's power under the '*Customer*' archetype, which involves a choice to procure these services from a particular pharmacist or take their business elsewhere. However, patients still have the responsibility to provide their chosen pharmacist with the necessary and accurate elements needed to deliver the service (e.g., valid prescription, payment/insurance, medication regimen, identification, etc.). In turn, the pharmacist is responsible for adhering to professional and ethical practice standards, but within these requirements still control the particulars of what, when, and how they offer services.

The power patients have to "vote with their feet" also helps in understanding why the "Care Longevity" factor for the '*Customer*' archetype is shorter than its comparators. For patients primarily viewing pharmacist care services through a customer lens, nothing is tethering them to a particular pharmacist for an extended period. Similarly, the duration of the care encounter is much shorter, as seen in the opening sentence of the excerpt above. This attribute also relates to a characteristic for the factor of "Communication Style" in the '*Customer'* archetype, which is a preference and expectation that the pharmacist provides useful, succinct, and informative "Directions." The flow of information in these exchanges are mostly one way, with the pharmacist transmitting content intended to be downloaded by the patient in a time-efficient manner.

The expressed preferences and expectations for pharmacist care that is condensed in time and content also aligns well with the standard and customary level of "Care Customization" often found in statements in this study coded with the '*Customer'* archetype. This is apparent in the following statement provided by a patient from Minnesota describing how he formerly saw pharmacist services.

> *"Many years ago, … [pharmacist name] was trying to get me to change, and I wouldn't change because of my own stubbornness or something. So I'll go check it out. I'll go ask another pharmacist. They all have the same degrees, right? I mean, they all have had the same schooling… the chains, or whatever you want to call them, [CHAIN], there's a lot of different ones. There's a very competitive industry."*

The excerpt shows that at this time in his life, the patient viewed and used pharmacist services as interchangeable. That opinion has since changed, evidenced by the same patient's willingness to now drive more than an hour to see the same pharmacist (see the excerpts on pgs. 161 and 164). Perhaps one explanation for this change is that the patient's preferences and expectations were no longer based on a "Source of Value" of convenience, which is the descriptor for the fifth and final factor of the '*Customer*' archetype. Patient convenience in the scope of this study refers to the procurement of service with minimal effort and that is conducive to other life demands. This mindset was expressed by a patient from Texas when asked what they preferred and expected in care from their pharmacist. They succinctly stated, *"It's easy process and painless. (Laughs) It's quick."* This quote and the ones preceding it each represent characteristics that formed a pattern of care preferences and expectations associated with the '*Customer'* archetype across the five factors.

An evaluation of these results within the context of pharmacist practice and Pharmacy discipline will take place in the next chapter.

4.3 Results for Qualitative Trustworthiness

The third section of the data analysis plan was conducted to maximize the trustworthiness of the study's findings by following the principles and strategies outlined by Guba and Krefting, who developed widely accepted thresholds for rigor in qualitative research.[271,272] The following summarizes the sample of study participants as a whole and provides a detailed description of each study participant's definitions, preferences, and expectations for PC in their own words.

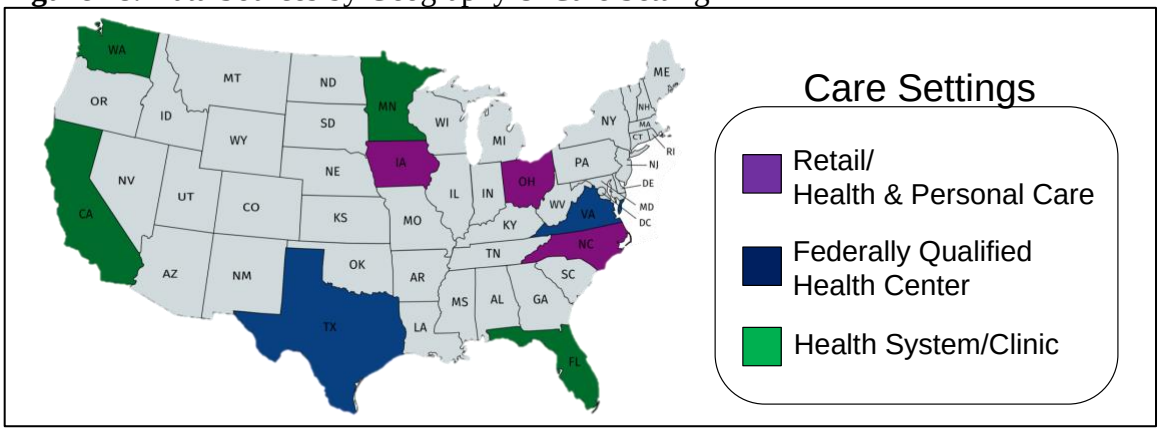
This study's sample consisted of fifteen individuals of which nine were pharmacists and six were patients. These study participants live in nine different states and represented three different care settings. The nine states were Iowa, Ohio, North Carolina, Washington, Texas, Virginia, California, Minnesota, and Florida. The three categories of care settings were "Retail/Health & Personal Care," "Federally Qualified Health Center (FQHC)" and "Health System/Clinic." The geographic, care setting, and participant type distributions of the study are detailed in Table 17 and Figure 28. At least two pharmacists and one patient from each type of care setting were interviewed for the study. Furthermore, at least two pharmacists and one patient represented states from four geographical areas: West Coast (i.e., California, Washington), Midwest (i.e., Iowa, Ohio, Minnesota), South/Southeast (i.e., Florida, Texas), and East Coast (i.e., North Carolina, Virginia). This equitable distribution by geography and care setting in the sample was purposeful to track potential factors like state laws and statutes, workflow frameworks, services offered, and other characteristics that could feasibly impact patient care and

practice dynamics. All states represented in the study have pharmacist scope of practice laws that allow for modification of drug therapy (N.B., all states except North Carolina are pursuant to a collaborative practice agreement).[279]

Table 17. Study Participants by Location, Care Setting, & Participant Type

STATE	GEOGRAPHIC REGION				CARE SETTING			PARTICIPANT TYPE	
	West Coast (WC)	Mid-West (MW)	South/ South-East (S/SE)	East Coast (EC)	Retail/ Health & Personal Care Pharmacy (Retail)	Fed. Qual. Health Center (FQHC)	Health System/ Clinic Pharmacy (HS/Clinic)	Pharmacist (*n*)	Patient (*n*)
CA	1						1	1	1
IA		1			1			1	1
FL			1				1	1	
MN		1					1	1	2
NC				1	1			1	
OH		1			1			1	
TX			1			1		1	1
VA				1		1		1	1
WA	1						1	1	
DISTRIBUTION TOTALS									
STATE	GEOGRAPHIC REGION				SETTINGS			PARTICIPANT TYPE	
	WC	MW	S/SE	EC	Retail	FQHC	HS/Clinic	Pharmacist	Patient
9	2	3	2	2	3	2	4	9	6

Figure 28. Data Sources by Geography & Care Setting



Other sociodemographic descriptors collected from each study participant are summarized in Table 18. For the descriptor of gender, females outnumbered males in the

patient and pharmacist subsamples at least two to one. Of the 11 female participants enrolled in the study, seven were pharmacists and four were patients. The remaining four male participants in the study were split evenly between the patient and pharmacist subpopulations.

The proportional representation of age differed between patients and pharmacists, with the latter subsample being younger than the former. Of the nine pharmacists interviewed, five came from the Millennial Generation (i.e., ages 15-37), three from Generation X (i.e., ages 38-58), and one from the Baby Boomer Generation (i.e., ages 59-76; N.B., none were Medicare eligible). Conversely, there were no patient-participants from the Millennial Generation, one from Generation X, three from the Baby Boomer Generation (N.B., one was Medicare eligible), and two from the Silent Generation (i.e., ages 77-94).[280]

Two-thirds of all study participants self-identified as "White/Caucasian," representing seven of the nine pharmacists and two of the six interviewed patients. Additionally, at least one patient and one pharmacist self-identified as "Hispanic/Caucasian" or "Asian/Pacific Islander," respectively. The single remaining patient enrolled in the study self-identified as "Black/African-American."

The self-reported highest level of education was higher for pharmacists than patients. Eight of the nine pharmacist study participants had achieved a doctoral degree, with one having a Bachelor's degree. In comparison, one patient held a Doctorate, three patients had attained a Master's level degree, one patient had at least some college, and one did not pursue formal education beyond high school.

Fourteen of the fifteen study participants self-reported having health insurance; the one study participant who did not was a patient. Additionally, all study participants except two identified a primary care physician as the person they go to first when seeking medical care, the exceptions both being pharmacists who contacted their medically-trained friends before seeking formal services.

Fourteen of the fifteen study participants also self-reported not being worried about their health; the one study participant who reported being worried about their health was a patient. Eight study participants, all pharmacists, reported not being diagnosed with any chronic conditions and not taking any prescription medications. The single remaining pharmacist participating in the study self-reported having two chronic conditions and taking two prescription medications. All patients enrolled in the study had more than one chronic illness for which they took more than five prescription medications.

Table 18. Key Descriptors of Study Participants by Patient & Pharmacist Groups

DESCRIPTOR	PATIENT	PHARMACIST	TOTAL
Gender			
Female	4	7	11
Male	2	2	4
Age			
18-37 (Millennial)	0	5	5
38-58 (Gen X)	1	3	4
59-76 (Boomer) [*Medicare]	3[*1]	1	4
77-94 (Silent Gen)	2	0	2
Race/Ethnicity			
Asian/Pacific Islander	1	1	2
Black/African American	1	0	1
Hispanic/Caucasian	1	1	2
White/Caucasian	3	7	10
Education			
HS/GED or less	1	0	1
Associate's	0	0	0
Bachelor's	0	1	1
Master's	3	0	3
Doctorate	1	8	9
Some College	1	0	1

Health Insurance			
No	1	0	1
Yes	5	9	14
Primary Healthcare Access			
Primary Care	6	7	13
Pharmacist	0	0	0
Other	0	2	2
Worried about health			
Not worried	5	9	14
Worried	1	0	1
# of Chronic Illnesses			
0	0	8	8
2	2	1	3
3	1	0	1
6	1	0	1
7	1	0	1
12	1	0	1
# of Medications			
0	0	8	8
1	0	0	0
2-5	0	1	1
6-10	3	0	3
11-15	2	0	2
16-20	1	0	1
Participant Type & Occupation			
Patient	6	0	6
Counselor	1		
Home healthcare	1		
Retired Lawyer & Financial Planner	1		
Retired Psychologist	1		
Retired Teacher	1		
Warehousing	1		
Pharmacist	0	9	9
Pharmacist – FQHC		2	
Pharmacist - HS/Clinic		4	
Pharmacist - Retail/H&PC		3	

Abbreviations: FQHC= Federally Qualified Health Center; HS=Health System; H&PC=Health & Personal Care

A detailed description of each study participant along with their definitions, preferences, and expectations for PC in care provided by pharmacists with patients is provided below. All study participants have been assigned a pseudonym to protect confidentiality.

Floyd (Iowa Patient)

Floyd is an 82-year old white male who is married and retired from a career as a lawyer. He receives his health insurance through Medicare and self-reports being diagnosed with two chronic illnesses for which he currently takes seven prescription medications. Floyd describes himself as it relates to healthcare in the following way:

> *"I'm the type that likes to spend time inquiring on my own, see what's available, the various resources, over the Internet, etcetera. And I would attempt to try and understand things, and I would always get to the point where it really wasn't very clear and what the ramifications were, things of that nature. So, you know, that would develop questions that I would have that I would go over with [healthcare providers] to try and explain."*

When asked about the definition of PC, Floyd identified it as caregivers providing him with "good attention and [taking] the time to explain." as well as "[having] my interests certainly at the forefront, and…not leaving things hanging in the air." He receives care from multiple pharmacists in both the inpatient and outpatient settings. When asked what he expects and values from his care with the pharmacist, Floyd responded:

> *"Just reassurance that what my list of prescriptions that I'm on are compatible. And that's been reassuring to have that done. We haven't gone into any real in-depth discussion or any explanation of what each prescription is for and it's more of my assurance that they are looking at the prescriptions knowing that they are compatible.*
>
> *And I've really grown to expect the pharmacist to perhaps have a better understanding of the compatibility than the various physicians that are looking at one, more narrow aspect of my health…it's especially when I have changes in my prescriptions that are made by the physicians. And I have good faith in my cardiologist and my vascular team. And it's just that it's reassuring to me to have someone looking at the overall picture and, you know, from the standpoint of the pharmacist, knowing that what I'm on is proper… I know that the pharmacists, on*

occasion, will be in contact with my, either my internist or the other doctors who are prescribing or making sure that I know that the doctors are in communication with each other. But I, it's just, I look at the pharmacist as being in my corner to see that what is taking place is appropriate.

And when I've gotten a new prescription occasionally, I know they will make sure that, have I taken this before or not? And if not, this is what it's for and to coordinate that type of thing. It doesn't happen often, but it, when I was going through my various hospitalizations during this past year, there was enough changes going on that it was really helpful to know that they were looking at the overall picture too…I've been very satisfied."

Floyd reports his health and medication regimen has been stable in recent years but he has a history of cardiovascular conditions that required surgery.

Kate (Iowa Pharmacist)

Kate is a 40-year old white female pharmacist who is the Director of Clinical Operations at an independent retail pharmacy (i.e., health and personal care pharmacy). She describes the population she serves as "a pretty stable patient group" that she "know[s] quite well." Many of her pharmacy's patients come from the baby boomer generation, ranging from pharmacy school faculty and retired physicians to individuals with intellectual disability and traumatic brain injuries. She also notes that some of her patients travel from surrounding rural areas while others use the city's bus system because they do not or cannot drive.

Kate provides patient care in several ways, such as dispensing medications at the pharmacy counter, answering questions over the phone, and sitting down with patients for an appointment. Kate has health insurance and self-reports not being diagnosed with any chronic illnesses and does not currently take any prescription medications. She described what PC meant to her in the following way:

"It's approaching the overall healthcare for that patient and taking into consideration all the data that we have out there, all the guidelines that are in place, but recognizing that there's unique qualities of this individual patient that we have to take into account in order to ensure that therapy, the goals, the treatment is the most appropriate regiment for this specific patient. I mean, it's taking into consideration pharmacogenetics. It's taking into consideration socioeconomic factors. It's, you know, all those things taken into account to help develop the most effective plan of care for the patient…you have to have solid knowledge base. And I think I'm a firm believer that the residency training that I went through and completed certainly provided me with a lot of opportunities and practices in order to be able to conduct a thorough medication review in a lot of different settings, right off the bat.

I think health coaching skills are really important too. And whether or not somebody has been a certified health coach or whatnot, but I think some further training on coaching patients whether that's smoking cessation or how to become more, you know, working to help them improve their adherence to their regimen or convincing them that they needed to start checking their blood sugar, anything like that. I mean, we're always in a state of coaching patients.

The empathetic listening and really hearing what people are saying, and then using that as a stepping stone to address barriers that they might have for achieving the goals of therapy and coming up with appropriate plans for each patient. So I think problem solving is another key area for a pharmacist. Willing to collaborate with other providers too, I think…I mean, we are definitely looking for solutions to whatever the problem is. If it's a cost issue, if it's an adherence issue, if it's a drug efficacy issue, we're always looking for solutions. But we're also that community supporter or health coach to the patients when they come in and when we follow up. And that's when I use a lot of my med-sync, those monthly calls, to check in and see how people are doing with new medications."

When asked to describe her patients' expectations of care, she responded:

"I feel like there's kind of different things that matter depending on the type of interaction I'm having with the patient. For example, if I'm calling them for kind of a monthly review for their med sync appointment, and I'm reviewing things, I think the most important thing at that time is that they want to know that I hear what they're saying, that I understand what needs refilled and that I get things ready for them at the appropriate time.

If it's a more in-depth medication review, so if we're contacting somebody that, you know, we've described that this is a review that we offer to any patients, and we do them every six months, for example, I think at that point, they probably have a question or some concern that's leading them, that's triggering them to come into this. And so again, I feel like the underlying theme is they probably just really want to know that somebody cares and that somebody is hearing the concerns that they say. I think sometimes our sit-down medication reviews tend to be a little, probably a little slower-paced than when they have those couple minutes at their physician's appointment where the doctor may be rushed, or they may feel pressured to hurry up and fire off questions. These interactions, I mean, take at least 15, if not 30 minutes, and sometimes that just gets patients time to think of additional questions too. So I think, again, it probably, for them, they just want to feel like they have an opportunity to ask their questions and to express whatever concerns they might have…

It's also kind of different depending on the individual. And I would say it definitely helps that I've gotten to know, we have a very pretty stable patient group... When you're talking about changing therapies, [they expect us to help them] to find [medication] that is a cost-effective, reasonable, regimen for them to do. I have never been in a relationship with a patient where I'm going to tell them what to do. That's just not going to be very effective. I think most of the time, we try to take the approach of giving people options and then letting them choose and helping them along the way to make good decisions…like what are you expecting from this medication so we can hopefully kind of get to any concerns that they have about taking it.

I think people's expectations of us if they haven't been to our pharmacy before are pretty basic. I mean (laughs), I expect you to give me the right drug and to know my insurance [inaudible]. And so anything above and beyond that can be, is oftentimes a very different experience for [new] patients…[For patients familiar with us], they're expecting us to ask them some pretty direct questions like, what was your most recent [hemoglobin] A1c result? What was your most recent INR? I think people are expecting that from us now. They know that we ask those questions periodically, and we document it periodically. And we try to make sure that people understand what we do with that information, that we have our own documentation record that we keep here. I think people want us to help them keep an updated medication list too."

Joan (California Patient)

Joan is a 75-year old female who identifies her race and ethnicity as Hawaiian, Chinese, and Spanish. She is a retired teacher with health insurance who self-reports being diagnosed with three chronic illnesses for which she currently takes 12 prescription medications. Joan has had a relationship with her pharmacist for years and describes how she first began to work with them to manage her diabetes and hypertension.

> *"[My primary care physician] recommended that I go to see the endocrinologist who would be better able to help me. And my glucose readings were running about 10 to 11 at that time, for my [hemoglobin] A1c. So when I went to see the endocrinologist, by happenstance, the endocrinologist nurse that she worked with that did the consultation with patients was busy and couldn't see me. So they referred me to a pharmacist at [pharmacy].*
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> *And so I went there and started working with a pharmacist. And that was one of the best things that happened to me because by working with the pharmacist and beginning with a baseline from where I was with my glucose reading and the pharmacist monitoring my insulin because, at that point, they put me on insulin, and insulin dosage, and adjusted my other medications, my oral diabetes medications. And I have high blood pressure, so they monitored my high blood pressure and made changes in my medications. And I would be meeting with them, initially, every two weeks over a period of months. And my glucose [hemoglobin] A1c readings really dropped down. So my last glucose reading that I did, it's been a month now I think, yeah, a little less than a month, I dropped down to 6.8. So I've gone, you know, from being really high in my glucose readings to where I'm, where they really are comfortable where they want me to be and where I want to be…. I don't mind doing the record keeping. I don't mind sharing time with the pharmacist. Other patients might feel that it was too much. They didn't want to do that. They didn't want to be going all those times. And they definitely, they don't want to do the recork keeping… I'm hoping that if I can stay on this regimen of care that I'm on and my medications keep working and the pharmacist makes the adjustments as necessary, I'm hoping I'm going to live at least another 20 years. I mean, I'm counting on it. (Laughs) I mean, unless I get cancer or something, you know what I mean? I feel confident that if I can keep my blood sugar under control and my blood pressure, you know, under control, I think the outlook on my life, the remainder of my life, is positive."*

When Joan was asked to describe what really mattered to her about the care provided by her pharmacist, she responded:

> *"[My pharmacist] knows me, she knows my background. She knows my family because we talk about that when I go in. I'm not just a patient. I mean, I am her patient. But how do I want to say it? I'm not just a stranger that she sees every three months. Or I'm not a stranger, I'm like I'm not a number. Yeah, I have a relationship with my pharmacist. I trust her.… I think the relationship is critical. I think these doctors care. I mean, honestly, they do. They care that I take the time to do what they have suggested, okay. And that I progress in my health, they care. I know they do because they react with me about it every time I see them. So the relationship that I have with [my pharmacist] I think is very important because like I did not get the same- of course, she's not a pharmacist. But I did not get the same interaction with the previous [physician]… her ego was so much more a part of what was happening with her, okay, that my care was secondary to her. That's why I say, the pharmacist I'm working with and the endocrinologist I'm [currently] working with, I know they care, and it matters. It matters to me…*
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> *It's just not about having all the knowledge. Do you know what I'm saying? If you're having all the, like I'm sure the endocrinologist that I met the first one had all the knowledge too. But there was like a wall between that doctor and myself, you know, so it affects my attitude towards the doctor, which then in turn affects my attitude towards my health.*
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> *I think it's really important that there is this team effort…My team that takes care of me because they're in touch with each other. That's what's wonderful about the Internet right now. They can get in touch with each other. -that's what makes a- it makes a huge difference. Like at [health system], they're all in the same network. So all my information, all my bloodwork, all my visits with each of those [health system] doctors is all in my file. So like, for example, before I got to see my endocrinologist, he's looked on my file in my file online, and he's already seen what the ophthalmologist has said and recommendations that he's made. Or she could email him and say, I just saw [Joan] today and thought, this, this, and this. So talk about it at my next visit."*

When asked about her expectations and preferences for care with her pharmacist as well as the value she receives from it, she responded:

"When I go into my appointment with [pharmacist] I bring in my log that I've been keeping. And she and I will go over the log and talk about the patterns that she sees in what I'm eating and my medication dosage and my glucose levels. So I look forward to that because it helps me keep myself on target with monitoring my glucose so that I know if I have fluctuations in the glucose readings, she explains to me why that might be happening. So I feel better equipped to move on with my treatment by making some of the suggestions that she gives me.

So I look forward, yeah, to going over my records with her and hearing what she has to say about how I'm progressing and where I'm having dips, how I can correct those situations. One of the things I [like about seeing my pharmacist], in the beginning [after I've had a dip], seeing [the pharmacist] every two weeks, you know. Lots of times, you go to the [physician] and I can't see the doctor for another three months. And even if I went to that nurse practitioner that was working with the first endocrinologist, I couldn't see her except every month. And I don't think I would have made as much progress if I had to go every 30 days instead of going every two weeks… Meeting with the pharmacist to go over that data together, that was critical. It really was critical. And then they give me, you know, like supplemental written information. I have this whole folder of stuff that I've accumulated from working with the pharmacist. And I think because they have the time to deal with it. I still see my endocrinologist, and he's a wonderful doctor. But he can only spend so much time with me. I spend more time with the pharmacist than I do with my doctor when I go for my appointment. And I see my doctor every three months, whereas the pharmacist, the most I will not see her is a month. I see her every month, and we go over the data. So the frequency, the amount of time that the pharmacist is willing and able to spend with me, really makes a difference because we can really look at the data, and then from appointment to appointment, I can see how I get better…

[My pharmacist] has taught me how to use the information on my chart to make decisions. Like say, with my insulin, like when I take NovoLog, my medium, my regular dosage is 14 units, okay. And she has taught me that if I'm going to eat a really light meal, I can drop to 12 and see how it goes, okay. And then if I know I'm going to get a really heavy meal, okay, I can go up to 16 and see how it works. And then also, when I look at my chart, not only when I look at my chart, I should say this, I can recognize the signs of low blood sugar, especially at night or even maybe sometimes during the day. She's taught me how to recognize the signs of the low blood sugar, you know, with my headaches and the feeling of the sweatiness and like I'm- you just judge, you just know something is wrong with your body. And so I check my blood sugar right away. I know to check my blood sugar right away. And then when my blood sugar is 70 or below, that tells me my blood sugar is too low, and that's why I'm getting that reaction from my body. And I know

to take, my prescription is I just suck on three hard candies. And then after 15 minutes, I check my blood sugar again. And if I'm up to 100 or higher, I'm good. But if I'm not, then I suck another three. And so I've been able to do that, those kinds of things, because she's taught me how to self-manage myself… I'm really satisfied with what's happening for me. Yeah, I really am. I mean, I'm just glad I got into this situation…

I want to have confidence that the pharmacist really knows what she's talking about. And I definitely feel that with [DOCTOR], okay, based on all the things that she has been able to provide me and the explanations she has given me, you know, and the fact that the care that she's given me has resulted in my getting better. And that when we come into dips, she's able to problem solve, and we come out of the dip, and things get better, okay. So definitely the quality of the pharmacist knowledge is critical, okay.

And then, in conjunction with that, probably on equal footing, is the attitude that the pharmacist has towards the patient because I really feel when I'm with [DOCTOR], she really cares. I'm not just a number out of 35 patients that she has to see in one week. You know, I'm not just patient number 30. I'm [NAME] to her. So that connection between the pharmacist and the patient is really critical."

Helen (California Pharmacist)

Helen is a 35-year old female who self-identifies her ethnicity as Asian-Pacific Islander and works at a health system/clinic pharmacy affiliated with a University where she sees patients on an appointment basis. Her practice has collaborative practice agreements with several physicians as part of care network for managing anticoagulation, diabetes, hypertension, and other chronic conditions. She also notes that several of her patients speak Spanish, so she learned the language herself so she could better connect with them.

Helen has health insurance, self-reports not being diagnosed with any chronic illnesses, and does not currently take any prescription medications. Helen defined PC in the following way:

"[It is care] that focuses on a patient's needs,…which is based on high evidence-based studies that will bring the best outcomes to patients. But it's not always black and white and should account for differences between personalities and educations and backgrounds. I think that all influences that. As a clinician, whether you're a pharmacist of physicians, or NP [nurse practitioner] or PA [physician assistant] or nurses, our goal is making sure our patients are safe and, you know, getting the best care…

What matters the most is that they're gaining a feeling that this doctor or this pharmacist are caring of their health. A feeling of that caringness and making that bonding relationship. I think it makes a really big impact…and also, it shows on their outcome if they haven't bonded well with a provider, of course, they're not going to show up to your follow-up appointment, you know? And they're not going to take their medication. They might feel like, oh, the doctor doesn't care about me."

When asked to describe her patient's expectations of care, she responded:

"I do [want to] hear in the initial visit what [each patient's] expectations are from me…sometimes, often times, they get referred to us and they say, oh, I just need a help- you getting me refills. Or I just need to get a different medication because this one is expensive. That's all I need from you. So, you know, sharing that expectation, I think it's very crucial in the initial visit. Even like in the beginning of your visit making sure that I give them what they need, so, you know, I do my best to meet their needs and expectation.

And I also share my expectation, what I want from them. You know, sometimes I give them homework. I give them- okay, now you shared your expectation, I shared mine, my turn. So I want you to do this for me for the next two weeks. I want you to check sugar. I want you to eat healthy, da, da, da, da. So kind of it goes kind of both ways. So I think they want to, you know, do better on their disease state, making sure they stay healthy because that's the reason they show up to my appointment. They want to see me."

Viktor (Minnesota Patient)

Viktor is a 62-year old male who self-identifies his ethnicity as Hispanic/Caucasian. He works in warehousing and has health insurance through his employer. Viktor self-reports being diagnosed with two chronic illnesses for which he

currently takes nine prescription medications. In the following text, he describes his health status and history as well as how it relates to the services he receives from his pharmacist in the following text.

> *"I have a progressive illness, diabetes, and so things do change. My activity level changes, and my diet has changed off and on. Different activities create different problems for a lot of the medication I'm on. You know, so we always talk back and forth [with my pharmacist] what might be causing this particular side effect or that side effect and, you know, either taking something away or lowering the dosage or increasing the dosage,…they've got me on high cholesterol and heart medicine, blood thinner, I think it was a blood thinner, and aspirin and, I mean, I take pills and insulin. So I'm on a wide variety…[my pharmacist confirms] all the different medications I'm on and what's changed, what's, you know, what's still working, what's not working, so on and so on, you know, do we need to increase something or decrease something? She always asks me basically a lot about how I'm feeling and about my smoking...*
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> *I've put on some weight. I was out of work for like six weeks in between jobs and really not wanting to go back to a temp service, so I was just job hunting to get hired on directly with someone. That's how I ended up in retail.… I'm older now too though, that's part of it is I don't have the stamina I used to have. You know, my body hurts now. I'm not ten years younger, and it does make a difference. But I have to get back to it, and I know it…I take metformin. I take insulin, one shot a day. Januvia and glipizide, so that's four different medications just for diabetes. Then the other ones are to support those medicines or make it easier for my body to digest things or whatever, you know…*
>
> *I started on all the pills, back in the day, it was many years ago, I was an IV drug user. I didn't want needles in my life, period. So, I mean, I grew up in the 60s and 70s, if you can imagine. Just leave it at that. That's what we did, you know, and that was a long time ago. But, you know, what we use for injecting drugs were insulin needles. So- and I don't like it. You know, I don't like them around me. I don't want it in my life.*
>
> *And so for many years, you know, [my pharmacist and me] worked on just with the pills, you know, metformin, glipizide, Januvia, you know, and it was working. It wasn't until recently- well, I've gotten a little bit older, and I don't exercise as much. Our goal has always been, it's always been mine, even though I've gotten lazy over the last year or two, to take away medicine, not to increase it. You know, a lot of diabetics who want to continue to overeat and everything, they just more drugs. That's never been my goal, you know. I don't- that's why I only*

take 30 units of insulin a day. I only do one shot a day. It's for 30 units, and that's it. You know, I could go and take a lot more, but, no, that's not really my goal. That's not what I want. You know, I don't want to become insulin dependent and more and more drugs…

I see [medications] as absolutely necessary. I used to- I don't know, I don't want to say I didn't trust them, but many years ago, I used to tease my doctor, well that's part of your job is administering medications, and if you're not doing it, you're not doing your job. And I'd tease [my pharmacist] about it because there was a part of me that believed it. She's doing that just because that's her job. You know, not that they get kickbacks or anything like that, just they're medication happy. But then as the years have gone on and [my pharmacist] has explained things to me, and my doctor has explained things to me, I came to trust- they know what they're doing, and they're doing it for a good reason."

When Viktor was asked to define PC in his own words, he responded in the following way.

"[It is an approach] that [leads] that patient to believe that it really is about them. You're not just a number. You're not just another appointment. They really are taking personal care of your personal needs, you know, and that's the way I've always felt with [my pharmacist], that I matter. And I'm not sure how everybody needs to do that differently, you know, because there's different personalities and whatnot. But that, offer it as much as they can and really caring.

I'll tell you one of the things that's been really huge for me too is her follow-up. You know, I've never gotten that kind of service anywhere else. Where they- they may make a phone call, and that's it. But she'll call back, I mean, (laughs) if I blow her off for a while, you know, and I apologize, but she will continue to bug me."

Viktor also went on to describe his expectations and preferences regarding his care with the pharmacist, as well as what he values in it.

"She's real open and takes plenty of time with me. That's what's really important to me. You know, doctors they have a quota to get every day. They've got appointments. And so does [my pharmacist], but she always seems to have a whole lot more time available for me to ask questions because I like a lot of education about- especially if things

change…[She] has been an ear for me more than once. I mean, she's just a real, you know, she's been a blessing. And that's what's most important to me that, you know, she continues to treat me with the utmost respect and a kindness that she has shown me over the years and gives me all the information I need. You know, and she can tell you, I'm a talker, and I ask a lot of questions (laughs). I want to understand. You know, I want to understand what it is my body is going through… [Another] thing I like about [my pharmacist] is that she can have a lot of compassion, but at the same time, if she really feels like I need to hear something point-blank to hit me between the eyes, she'll do that too. You know, she doesn't, (laughs) she doesn't hold back… I had gained about 20 pounds in about six weeks. And she was- you know, and she did, she confronted me, what are you doing? You know, I mean, she was real point-blank about, you know, as I was getting ready to leave, she goes, you know, it's a nice sunny day, you can probably go home and go for a good walk… I have a tendency to snack, and she always tells me anything in a bag is usually no good. (Laughs) So she'll lecture me about my snacking because I love ice cream and potato chips, and she tells me she hardly ever eats any of that kind of stuff. So she's sharing her own stuff with me. You know, and that enables me to trust her more… And it helps sometimes that she kind of kicks me along the way. Just like she's doing with smoking, and she's been on me for years. And she's told me and told me, I can get you medication that will help, but you've got to be ready. You have to know that you're ready to be done. [Also], I do think [my pharmacist] knows more about medication than my doctor does. Even my doctor has said that, let me talk to [my pharmacist] (laughs) because that's their- you know, that's your profession."

Minnie (Minnesota Patient)

Minnie is a 78-year old white female who is married and retired from a career as a counselor. She receives her health insurance through Medicare, self-reports being diagnosed with seven chronic illnesses for which he currently takes six prescription medications. In the following excerpt, Minnie describes her healthcare history, status, and what she sees the pharmacist for.

"I've had about seven surgeries, and I've had breast cancer. I've had gallbladder disease. I've had everything almost. So I'm really used to being around medical people, and [the pharmacist] was just like

one more. My doctor totally explained to me what her purpose was, why I was going to her, and what the deal was, and I liked her right away… I'll tell you something, I'm a counselor, and I do group therapy, and I've been doing counseling for 35 years, so I have a good feeling about people. I can tell pretty much when I meet somebody. You know, you know how you feel like you feel good around some people, and you don't feel good around others, your body tells you…

I have to take like thyroid medication and cholesterol, and I also have Meniere's, do you know what that is? That's nasty, you don't want it. But I had ear surgery…

I drank a lot when I as young person, 20, when I went to college. But I've had migraines since I was five. So I got hooked on codeine, and I used to- and I would panic. And of course it started causing a lot of rebound headaches and blah, blah. So I went to a neurologist, and he said, you need to be detoxed. I didn't even know what the word meant. This was in 1978. So I went to treatment, and I was there for six weeks, and I went through hell trying to get off of it. It was really hard. And so then, I figured out about addiction, and I never- I've been sober for 41 years…I had headaches for quite a while after I got out of treatment because there was nothing for them, and the Imitrex came out, and that saved my life. And now since I've had my ear surgery, I don't get them…

After I had cancer, I got depressed, and that's very common with breast cancer…It's like you take your last radiation, and you're done, and everybody thinks you're fine. You're not fine. You've been through a traumatic experience. So I think- I always knew I was an addict, but I didn't think I had any mental health issues, and I didn't before this.

When Minnie was asked to define PC in her own words, she succinctly stated that it is care that is "making your life easier." She went on to describe her expectations and preferences for PC in her care as follows.

"The thing that matters the most to me is I have been seeing [my pharmacist] for maybe eight or nine years. And she is in the same clinic with my doctor, and I know they work very closely together…She is very personable, and we have great discussions kind of about life and how my life is going and how my meds are working, and she knows me really well…, she always asks how I'm doing, are my meds working, are they not? I have type II diabetes, so she asks me how I'm doing with that, how my diet is, and I'm not, you know, I know her so well. I'm not afraid to tell her that I'm not doing well with it, or I'm doing well, or Halloween was hard on me or whatever it is. I don't have any trouble

telling her everything. She asks me if she can renew any of my meds for me while I'm in there if any of them need it, you know, filling. And I also know that I haven't had to, but I would feel free to call her at any time. She's great… Yeah, I think it's who she is. She's very, I would say, forgiving. If I haven't been following the diet, which is hard for me because this is new, I'm not worried about telling her. She's very- she acknowledges everything. I mean, she understands, and she knows me- I think a lot of it has to do with knowing her for so long. I see her twice a year, but, you know, if I see her in clinic, we say, hi. But it really has to do with she's very accepting and non-judgmental. If my labs get high, you know, she'll notice it or say something, and it's more about her being concerned than, what have you been eating?...

And I think it helps that she works with my husband too. And she always asks me how he is, how he's doing. I tell her, he still isn't doing any exercise, and she laughs. (Laughs) I tell on him. So then there was some kind of a- you probably heard about it. The U and [CLINIC], and they went through all this stuff and changed their name one more time. And I was really worried, and I asked her if it was going to affect where she was, and she said, no. I've asked her a couple of times if she was thinking of leaving, and she said, no. Because I don't want to start with somebody else…

I think relationships with people are very important no matter what side of the desk you're on. I am chemically- I'm an alcoholic, and I got hooked on opiates many years ago in the 70s, so I kind of know where they've been, and I know what they're going through. But any way you can relate to somebody, just little sentences, little things like, oh, I have a skirt like that too, or, you know, anything. It doesn't matter, just it has to be something about other than what they're there for. I think that's sets the tone in a way. You see them as a person, not a disease or a- you know, they're just a person who happens to be an addict or who happens to have psoriasis or whatever, but they're a person first. They're not the problem, they're the person who has a problem...

We always have a hug before I go, that's kind of nice. The same with my doctor. I don't know, she- it's just- she's just so easy to talk to. And she nods her head, nods her head. You know, I care about her. I care if she had trouble getting to work, you know. I care about her too. And her- the way she behaves and interacts with me has nurtured that. How's that for a sentence. Put that in there…"

Goldie (Minnesota Pharmacist)

Goldie is a 37-year old white female pharmacist who works at a health system/clinic with a collaborative model of care approach where often a physician will

diagnose a disease state and refer the patient to her appointments to get them started on medications. All of the patients referred to her have insurance coverage for this comprehensive level of pharmacist service. Golide also states that most of her patients have multiple co-morbidities with new diagnoses or poorly controlled chronic conditions like diabetes, hypertension, cholesterol, migraines, weight loss, asthma, COPD (Chronic Obstructive Pulmonary Disease), mental health, and more.

Goldie has health insurance, self-reports not being diagnosed with any chronic illnesses and does not currently take any prescription medications. Goldie defined PC in her own words the following way:

> *"[Care where] you're thinking about [patients] as a person. So it's not- they're not a disease state. They're not a medication. They are a person that is, you know, and you have to think about everything that's involved, right because their social determinants of health, their mental state, their ability to have a safe place to live, all of that is just as important as the medications, and if we ignore all that, the medications don't matter. So really focusing on that whole person and taking into account their beliefs and their thoughts and their conception of what health is and really trying to meet those pieces… I always start the visit with what is on, you know, I ask the patient, what is on your mind today? What do you want to make sure we talk about? And I let them set the tone for the visit. And there are visits where sometimes they might talk about the patient's sister passing away, and that's what they need in that day. And it might- we might not get too much of their medications at all, but they need to have- that's the care they need is someone to listen and empathize with their situation. And so I've found in my practice that I have to take care of their needs and their concerns and their questions first before I can tackle what, it's sounds funny to say this, but like my needs as a pharmacist, before I can say like, okay, there's a drug interaction here or your labs are offer or your [hemoglobin] A1c is really high, and you're not meeting your diabetes goals. I've got to take care of what their concerns are first because they can't think about those other things until they're comfortable with that situation."*

When Goldie was asked to describe what her patients expected and preferred from her care, she spoke of how they wanted to have their needs put first. This meant she made a conscious effort to not let her biases or personal preferences for her own care get in the way of how she care for her patients, as illustrated in the quote below.

> *"We all bring our own biases into the room, and we all bring our own preconceived notions. And I think that's a huge one of I personally want to be involved in my healthcare choices. So I bring in that attitude of, doesn't everyone? And the answer is, totally, no. And so it's- having the ability to recognize that in yourself as a caregiver and being able to read your patient's body cues and body language when you can tell that you're headed in the wrong direction or that you've lost them or that they're confused or that they, you know, really aren't following and asking them.*
>
> *You know, I don't know that we do enough as healthcare providers to say, is this too much information? You know, how do you like to make decisions about your health? Do you like to be presented with options, or do you like to be told what your healthcare provider thinks is the best option? I mean, think about- you know, I've never been asked that. But I try to ask patients that, and it helps me to know how much information they want, and how they want to make those decisions. And sometimes they just tell me they want a little bit. I mean, I can think of a patient a few weeks ago that was having surgery with really high blood sugars. And so I said to him, okay, I can give you all of the options, or I can tell you, we can be really aggressive, or we can do this a little bit more slowly, what do you want to do? And he's like, I don't want to know the options. I just want to be aggressive. And I said, okay, well, then let's go that route. And so just trying to work with them to find out how much information they really want."*

Aggie (Texas Patient)

Aggie is a 53-year old African-American female who reports having some college education and now works in home healthcare. At present she has some health coverage, self-reports being diagnosed with 12 chronic illnesses for which she currently takes 16 prescription medications. In the excerpt below, Aggie describes how she first came to work with a pharmacist and what takes place in their care encounters.

"I originally had a blood clot in my right jugular vein, which was a deep vein thrombosis, pulmonary, and that was November of 2012. And so after I was hospitalized and then got out, then they assigned me to a pharmacist, which I had one previously before the one right now, and I think I had him for two or three years…then they referred me to [pharmacist name], my present one, and he took over. And things have just gone from there. I usually got an see him on a good report, anywhere from two to four weeks later, with a bad report, then a week to two weeks later…The appointments usually last about ten to fifteen minutes, unless I get to talking more, but we discuss my intake of vitamin K and green, leafy vegetables, alcohol consumption or whether I'm smoking or not and my eating habits, exercise programs, and I think that's pretty much it. [He also checks] whether or not I've been having any bruising or bleeding or falls or bumps, bumping into anything, and if so- if I do have any of that, go to the emergency room and have it checked out…He goes off into other things that- what could have impacted and how to avoid it, and I can follow up if there's something he's not sure of, to follow up with my primary doctor or one of my other oncologists or what have you but one of my other doctors here. Sometimes he'll say he will call them and talk with them, and see what would be a better plan, or he'll tell me to check with them and then let him know, so it just depends on what it is as to whether he'll do it himself or if he'll have me do it and then report back to him…he asks me all the questions of, you know, have I smoked, have I had any alcohol, all the regular, basic, questions. Whenever my numbers don't add up, it's due to my own sabotage. It's my own doing…I tell him something like I'm trying some other over the counter something or [inaudible] or some other kind of vitamin, you know, he'll ask me about it and do I know what's in it, and I usually try to take a picture of it and bring it with me. But anyway, and then he'll ask me to bring it in so that he can go over it and make sure that it's okay for me to be taking under my circumstances. And I think that's pretty much it other than the drug itself, you know, him constantly asking me how it works out for me, if I'm having any problems from it."

When asked to describe what she expects and prefers in the care her pharmacist provides, Aggie responded, *"that it's an easy process and painless. (Laughs) It's quick."* She also provided more specific details in the text below.

"Fact checks with me as to whether, you know, I'm satisfied or if there's anything else going on or anything else that I want to talk about or bring up. And so, yeah, he digs deep into my wellbeing of how I've

been taking care of myself… the advice they give me, and everything is what I'm looking for and what I'm willing to try. So, no, I'm never put in a situation that calls for me to have to push back because I've been in total agreement with them…I'm glad that [my pharmacist] takes as much care in my [warfarin] numbers that he do because I've come to the decision that- well, I've come to realize that if I was not on the warfarin at this time, I think my blood is just automatically runs thick, and yeah, I would be with blood clots and probably not even know…They do have my best interest at heart and for my own safety, you know, health safety…

[When] my PT [prothrombin time]/INR is too low…I would prefer that would be adjusted for that day as well, and that's a mental thing because not adjusting for that day, then it kind of feelings like a stressor for my brain. Okay, you've got to not take in too much vitamin K, or you've got to take in more in order to get your numbers back on track for the next reading. You know, so it's kind of like a mental thing. That's how I think. I would feel more relief if it was adjusted for that day because then I'm wondering, okay, well, he adjusted it for the rest of the day, but is that going to make the numbers good? I don't want to have to come back in say, you know, in a week in a half, and the numbers are bad.

He's very friendly, thorough, and, you know, he cares about his patients, and he shows that he has their best interest at heart as far as their health and everything. Not all doctors are that way because I've had some doctors that have been the opposite, and I just fired them. You know, if I come into the doctor like that and ones that don't actually listen to me and what I'm telling them or complaining about or whatever to try to help me get better or feel better or whatever, then, yeah, I fire them. I find another doctor… I've had other doctors, you know, they're looking at the clock, and you're trying to talk to them, you know, explain what I've been going through or how I've been feeling or whatever, and there just saying, yeah, well, you know, you can take that. And my patients- I have other patients. Oh, they love that, and it works well. And if I'm saying it don't work well for me, they're constantly telling me how all their other patients like it and what it does for them or their own personal self that they take it. Okay. We're all different. I'm me. So talk to me, and let's try to get to a solution to help me, if not with this particular medicine, then some other medicine. But don't tell me what all your other patients is taking and how well it helps them or how that procedure worked for them and all that. I don't need it because it's me who is going to be having the procedure or taking the medicine, and if it's not working, if I'm telling you it don't work for me or whatever, then you need to be listening to me to try and find another solution…

I appreciate [my pharmacist] because some- you know, like I haven't said anything. I just stay talking to him for the next thing, but he's like, oh, yeah, I know. I'm so sorry. Yeah, that's a bummer, but at

the moment, that's the one that you have to take, but you'll get through it. You can do it. And, you know, he gives that encouragement because one time I almost lost my mind because my numbers just wasn't adding up, and I had to keep on taking the shots, keep on taking the shot, you know, he kind of like talked me down off the ledge, you know, by giving me that encouragement. Oh, you can do it. Not much longer. Okay, if you say so. All right, I'll try a little longer. (Laughs …He usually asks me, or he'll ask me all the time he asks is there anything I want to know or anything I have to say or whatever. He always asks me if I have any feedback, but I don't. (Laughs)"

Albert (Texas Pharmacist)

Albert is a 45-year old male who self-identifies as "Latino" and works at a Veterans Affairs clinic that is a FQHC. He sees his patients by appointment with sessions lasting up to 30 minutes to titrate medications for diabetes, anticoagulation, hypertension, and other chronic conditions. At times, Albert also participates in co-visits with physicians and patients in the same room.

Albert also notes that a number of his patients struggle with health literacy and affording their medications, even though some have insurance coverage. Some of his patients prefer speaking in Spanish, a language that he also speaks and which he feels allows him to better connect with these individuals.

Albert has health insurance, self-reports not being diagnosed with any chronic illnesses, and that he does not currently take prescription medications. Albert defined PC in the following way:

"[I think PC means being] collaborative with the patient… So- or it may be kind of explaining what are the options available. So if you're only on, you know, one medication for blood pressure, you know, talking about, hey, we have some other medications that we could add for blood pressure. Based off what you're telling me and based off what I see, I think adding, I don't know, chlorthalidone would be a good option for you. This is what I would expect in terms of efficacy. This is

also what you might see in terms of side effects and whether these side effects might be temporary. You know, how do you feel about that? How does that sound to you?... And so a lot of it is explaining, hey, this is how this medication works. This is, you know, how this medication doesn't work. And so, and this is why I want to add this on, or this is why I think this would be a good option for you because this is what I'm seeing. Are you seeing this as well? You know, what do you think about this? What are your questions about this?...

I mean, I can give [patients] thousands of things, but, you know, if the patient doesn't want that, then I think that kind of asks the question then, do you, you know, is it worth doing? So, and case in point with I guess a good example of that one is that lady yesterday with the hypertension. I could have just kept adding more and more medications on instead of trying to delve into a little bit of, well, what do you want, what do you need, and what can you do? You know, what are you willing to do today …you can't give a construction worker a five-day, or a five-time insulin injection regimen. That's just not going to happen, right. I mean, you can try. You can ask them, but chances are, that's not going to happen…

I feel like I provide patient-centered care when [patients are] able to, just do what they can do maximally at that time and they're comfortable with it. Yeah, or you know if I'm not meeting them halfway or if I'm telling you, hey, you need to take all five of these medications today and you need to do three injections a day, every day, and you need to make sure you're eating all the time, that just may not be feasible because the patient has too much stuff going on. They may not have time. They may have to work. And so finding out what they can do right now and saying, in some ways, triaging what is the most important thing that we need to deal with at this time and let's deal with that. Let's deal with that now. We can work the other stuff later…And being respectful and mindful of them and understanding what the patient, trying to understand what the patient priorities are makes a big difference."

When asked to describe what his patients' expectations and preferences are for his care, Albert responded:

"[That I'm] respectful of their views, of their time, especially - you know, a lot of times when they see providers, other providers, it can be like two to three hours from the time they walk in the clinic to the time they leave. And so I try to make sure I stay on time with appointments with patients and not really run over….- They also like to be listened to. So that's kind of a nice luxury that I have as a pharmacist. You know, we have 30-minute appointments, which doesn't seem like a lot, but

they're a little bit longer than some primary care appointments. So they- we have a little bit of time to kind of delve deeper into issues that might be affecting the patient and affecting their care. And so the patients tend to talk a little bit more, and I think that helps create more of a better rapport, a better dynamic with the patient. And so I think they kind of start expecting to be heard and to be listened to and to help problem solve with them. So I think those are probably some of the biggest expectations in terms of patients that I see on a regular basis…

Some of [my patients] will talk about how they think they take too many medications. Obviously, cost is another one. They talk about how they feel like they- if they're using insulin or other injectables, about how they inject too often. And so sometimes some patients can go up to six times a day of injections, and that can be a big lifestyle change. They often talk about how they are upset with their primary care doctor, at the last visit, something wasn't addressed, or they may not have the right medication that they believe they should be getting for their knee pain…I do have patients that come in and are like, oh, I can't take this medication because it causes this. You know, and they'll say some obscure side effect and, you know- or sometimes some of them are legitimate side effects. Sometimes some of them are off the wall and I've never heard of before. And in terms of how I perceive the patient, I don't know that it necessarily impacts how I perceive the patient. It might make me a little bit more aware of trying to finesse something. And what I mean by that is doing a little bit more explaining to the patient. It helps in terms of kind of understanding what the patient's background is and what their belief systems are...

With some patients, I don't think they understand initially, and slowly they do, that, hey, so I'm, I have the ability to order labs that need to be ordered for you and do some lab interpretation. They may not see their physician for four or six months but may need labs in between that. And so they often times won't do it because they're like, oh, well, you didn't, well, I didn't see the physician, so I'm not going to get those labs done. I need to get those labs done only when I see my physician. And so kind of explaining like, hey, the physician sees the same labs that I do. We're ordering the same, we're working together. Sometimes that helps to have be more compliant or more adherent getting the labs because, you know, they, I mean, I've had patients say, oh, I come to you for medications. I don't come to you for labs. And so I think some of that is a perception."

Madison (Virginia Patient)

Madison is a 59-year old white female who identifies as lesbian and is a retired psychologist with a Master's degree. At present she does not have health insurance and

self-reports being diagnosed with six chronic illnesses for which she currently takes 15 prescription medications. In the text below, Madison describes the first time she bonded with her pharmacist as well as some information about who she is as a person and patient.

> *"The very first time I met [the pharmacist and my physician], my partner was with me in the room. My partner was still living…[The physician] pointed a finger at [my partner] and just said to the air in general, who is this? And I'm sorry, but that is not an acceptance. And I got very angry. And I didn't show it. Like I didn't get up. My non-verbal stayed the same. I was seated. But I started to tie into him verbally about being gay whether he understand what the gay lifestyle entails because there is still some risk even with the acceptance, and after- and I actually- the whole interview with him, I conducted in a very angry fashion because I was thinking, this is the guy I'm stuck with? You know, help me. Let me get out of this room. Let me get to somebody else, and I don't have that option with the healthcare that I'm getting.*
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> *So when he left the room. I don't remember what she said. She gave me a hug, and I said, you get it. I think I said something about, what does it take for these people to understand. And she gave me a hug and laughed, and we connected on that. And that bond has stayed there...*
>
> *I've always been kind of a number's person. I have a math LD [learning disability], and I need help balancing my checkbook, but I get numbers. And I just- I keep track. I write down my daily blood sugar, like when I take it before a meal and after. I keep track of my [hemoglobin] A1cs that I get back on lab reports. I also look at the other values when somebody does a CBC [complete blood count] on me. At one point, my partner and I had cats, and one of the cats had failing kidneys, and we had to give her an IV periodically, which was not fun. And we would keep track of her creatinine, and I forget the other value, but we had to keep track of those because that would let us know when it was time to pump her up with fluids again. And I just carry that same mentality into working with myself. And I'm serious about it. I kind of think of myself sort of as a lab rat. And, you know, what comes in gets reflected and what comes out, and I just look at it that way. And I know that I am fairly rare among other people…*
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> *I have a table here that I'm looking at right now that is loaded with pills. I take more pills than anybody else I know, and I'm not proud of that. I have concerns about the impact of the different meds that I take, and I read all I can to keep up with that. But I feel like the medication does make a difference- so I'm happy with the fact that I'm getting them, that fact that the pharmacist gives them to me, the fact that the doctor prescribes them…I was treated for high blood pressure. I was*

treated for an elevated cholesterol, and I had a stroke, and so I'm no, you know the baby aspirin. And all of those things, once they were given to me, controlled the problems, so there hasn't been an ongoing issue about how much to take to control a problem because, initially, what they started me on took care of it."

When asked to describe her expectations and preferences of care from her pharmacist, Madison provided the following responses.

"[I expect] that she knows my needs. And that's medical- that's the whole person. In addition to the medical stuff… I feel like she understands my perspective and agrees with it, and that's where I feel the bond with her… I appreciate [small talk] because I'm not- I don't fit a cookie cutter mold, and I know I don't, and I appreciate the time that [my pharmacist] takes, even if it's only 30 seconds… I would say that I have a more professional interest, even when I'm dealing with my own meds, than the average person would have. And I feel like that also informs the type or the way I seek care when I'm dealing with a pharmacist because I ask more detailed questions. I ask about side effects. I ask about interactions up front. I don't wait to get the fact sheet with the drug or the little piece of paper that they give out in the pharmacy…

I am concerned about what I'm taking, the effect it's going to have on me, the effect it may have with other meds that I'm taking, what else I could take if I need to deal with pain or my feet or something like that. So I feel like I just carry myself through all those different interactions. And in my mental register, [my pharmacist] gets high marks for joining me at that level of needing care. If somebody is just pushing a script at me and saying, here, take this, that's not enough…

I feel like I'm the patient, but I should have a voice in my care, but I'm willing to listen to what everybody else has to say. And I'll reconsider. I'm not, my way or the highway, for me either…you can lay down the rules if it's crucial, but in situations where it's not crucial, you seek input…

I'm a big person on non-verbals. So when I'm talking to somebody, I'm trying to monitor all of what they're doing. And the first big thing for me is simple no negative non-verbals. And people let that leak in all the time, but just- and I'm just going to say this, not flinching. Flinching can be a lot of things. It can be blinking, it can be looking away, it can be crossing your arms, it can be any of those things. But all of that not happening goes to making me feel more comfortable. In addition to all the psychological things like acceptance and affirmation, yeah, that's important. But it shows up a lot in non-verbals. People are

not aware, I don't think, of how much their non-verbals communicate a lot of the time."

Ronda (Virginia Pharmacist)

Ronda is a 54-year old white female practicing at a FQHC, where she sees patients on an appointment basis, individually or in conjunction with a physician. She also runs an educational lunch program at her clinic where patients can have a healthy and free meal while learning about living with and managing diabetes. In the following text, Rhonda describes many of the challenges the population of patients she cares for face.

"We have lots of patients who don't have homes, so they're homeless. Or if they have homes, they're at risk of losing their homes. So most of our patients are significantly below the poverty level. Many of our patients, if they have housing, now may not have access to healthy foods because they don't have money left over after rent. So we have people that may be eating on the street. We have people that may be in their homes, but they only have one piece of chicken in their house. That's all the food they have. We have people who don't have transportation and are unable to get from place to place. We have people who are around people who are heavy drug users and stealing medications and stealing supplies from them because they need those to sell for drugs. We have people in, you know, that are in those housing situations that aren't in really good housing pieces. We have people who come to our clinic that are in substance abuse programs. And we have lots of patients that don't have access to be able to exercise or have access to a gym or those types of things. So it's really sort of some of the basic human needs are not necessarily being met to then be able to take care of disease."

Rhonda also has health insurance, self-reports not being diagnosed with any chronic illnesses, and does not currently take any prescription medications. Ronda defined PC in the following way:

"That you're willing to help them solve problems and issues, and that you listen. And that when you make a promise or do something, that you do it. Or if you don't do it, or if you forget or don't do it, that you own

up to it and then help them with whatever it was that you had promised to help them with before. I think it's really just those, sort of the similar things. It's honestly, it's empathy, it's compassion, it's being willing to do whatever it takes to facilitate the care, help them get access to care, you know, taking care, responding to questions, being available, and getting things done that need to be done for the patient...I think it's really making sure that you're facilitating that patient to be successful for whatever the treatment plan you and the patient have for the next, for whatever the goal has been set for."

When asked to describe what her patients' expectations and preferences are for care, Rhonda responded:

"It's about where does that patient want to be? Do they want their diabetes controlled? Or do they want to stop smoking? And then helping them get there based on what's going to fit within what they're doing in their life at that time… we do a lot around what the patient is willing to engage in and how often, you know, how often can the get to appointments? What's going on in their life?…we've got lots of patients with lots of significant social determinants of health that impact the care that we provide. So that's why it's really important that we look at all of that. We can prescribe or do whatever we want for medicines, but if they can't take care of themselves or can't engage in that treatment, it doesn't matter…

I think that patients like to have the same provider… they do get a little upset when they're having to continue to switch providers..., [the patients are like] 'they don't know me.' You know, and [the patients] have to start all over again. You know, I think any good clinician can provide the good care, but it does take some time to build that rapport…

You have some people who don't want to do medicine. You have some people who will engage in that process for whatever is needed for healthcare. You have people who don't have access to medicines they need because they can't afford them. And then you have people who have taken so many things that there's no way possible they can keep up with all the medicine. So I think it- the beliefs around medicine is important to whether or not you can get them to engage in it. I mean, lots of weird beliefs about, you know, insulin making your hair fall out and metformin hurting your kidneys and so all kinds of different myths that are there that you have to work through…They're looking for probably information about their medicines. You know, what- so how am I going to respond to it? What do I expect? What are the side effects, and are there any interactions to this? How do I take it? How do I use it appropriately? So it really, I think, deals with medications."

Gloria (Florida Pharmacist)

Gloria is a 32-year old white female who practices in an internal medicine clinic affiliated with a University where she mostly cares for patients with heart failure, hypertension, diabetes, hyperlipidemia, atrial fibrillation, and other chronic conditions by appointment, with sessions that last up to 45 minutes. Sometimes she sees patients individually but also does co-visits with physicians, physical therapists, dieticians, and other healthcare providers.

Gloria has health insurance, self-reports not being diagnosed with any chronic illnesses, and does not currently take prescription medications. She defines what PC means to her in the text below.

> *"I think of like the healthcare team as a whole, the center of that team is the patient…they are the center of everything that we're doing. And so by being able to be somebody they can reach out to and somebody to provide information for them and education, I'm hopefully doing the best service I can for that person, who is in the middle of the whole healthcare team.*
>
> *And not to get too far off tangent, but I think it helps the other people in the healthcare team as well for me providing these services to [patients] because maybe I can teach those [them], or maybe [other members of the healthcare team] don't have the time, and I can do that for them…*
>
> *It just goes back to the whole, every patient is different. Even those that seem on paper to be almost exactly the same down to the foods they eat, how much they exercise, what- if they have caregivers, even sometimes what their family and friends structure is…*
>
> *At the end of the day, it's not about me. It's about what's best for the patient. So even if I have a weakness, you know, something I'm always saying to my students is, you need to self-reflect. I've self-reflected a lot. And so I may not know all of my weaknesses. That's why I have mentors who still help me with that. But when I do, that's why I do that conscious exercise of, you know, you've got to just think about the patient, think about what the goal is. At the end of the day, it's not about [me]."*

When asked to describe her patients' expectations and preferences of the care she provided, Gloria responded:

> *"When I first meet a patient especially, they don't even understand like why they're talking to a pharmacist in that setting because it's kind of a non-traditional setting for a pharmacist to be in. So I go in kind of always assuming that I'm going to get that question and that the patient isn't going to understand it at first. So I use that as sort of an opportunity to help the patient understand like pharmacist, we do more than just count by five, you know, behind the counter. And even, of course, those pharmacists do a lot more…*
>
> *Every patient who comes in does have unique sets of problems that go beyond just medications and knowing what those lifestyle- the lifestyle specific problems you're asking, knowing what those are, that's also going to dictate what advice and recommendation I'm going to give totally he patient and the healthcare team because it's also helping me prioritize what's important and what's maybe something I can't hit in this visit, I have to wait until next visit to talk about… the one line that I always use is, help me help you. Especially when I have a resistant patient, you know, I tell them like, I totally respect whatever it is you want to do. I'll say to them, it's your health and your life at the end of the day. I am here to help guide and give you the best recommendations I can from what I know from my clinical side of things, but just try to meet me halfway.*
>
> *One out of two or one out of three patients will willingly kind of tell me, statins for instances being an example I get all the time. Oh, I don't want to take my cholesterol medicine because I hear, whatever it is that we- it's too many memory losses, or my friend's cousin twice removed had the muscle pain, so I'm going to get it too, and I don't want to do it. Stuff like that will- always comes up…I do make sure that I am saying to them, it's not only for cholesterol, like this medication is going to help prevent heart attacks and strokes from happening. So there's many reasons why it's good to be on these medications. And, yes, some people do have effects from these drugs, like any other drug you might be on, but just because it happens to them, even if it's a close relative, it might not happen to you. It probably won't. But that's why we're here to monitor and do what we can to make sure your quality of life is good. So it's kind of like, again, I'm consciously giving them the information, but I'm also saying to them like, I respect your choice. Here is everything you need to know to make the decision, at the end of the day…*
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> *I feel like they really look for too, just somebody who is going to, you know, help them out a little bit. There's a lot of things, I mean, we're all patients at the end of the day. There are insurance company*

things that we've all probably had to experience, or they don't- they're afraid of the right- the way they're asking the question. I'm just trying my best to make a very open space, free, safe, environment that no question is a stupid question, and if it's something you need me to advocate for you on, I will be that person and do it. And they- I feel like a lot of [my patients] are looking for that."

Miranda (North Carolina Pharmacist)

Miranda is a 37-year old white female who is the Manager and Director of Clinical Services at an independent retail pharmacy (i.e., health and personal care pharmacy). Her care for patients takes place through a variety of services ranging from the traditional in-person dispensing of medications to appointment-based medication management. As a whole, she describes the patients she cares for as "a rural population, many of them are low-income, Medicaid, Medicare, or dually eligible patient population." Many of her patients have co-morbidities, including COPD, hypertension, diabetes, hyperlipidemia, and more.

Miranda has health insurance and self-reports being diagnosed with two chronic illnesses for which she currently takes two prescription medications to manage. Miranda details how she defines PC in the text below.

"It's the small encounters that start to kind of build a relationship. Sometimes you start off with just asking about how their day is, and that's all you really get accomplished that day. And then as more kind of in-depth needs begin to appear, that's when I think we have the most meaningful encounters by sitting down together in a more formal or more appointment-based type model, in order to take care of some interventions or make some interventions. And so that would be the first caveat. I would say, a lot of times, patients- don't think twice about sitting down with me if we've kind of had this established relationship or they have a great need that they just can't figure out on their own. So once we sit down, you know, I think that that foundation is already there, and we can jump right into the concerns that a patient is having…

[It is] engaging a patient on a longitudinal encounter to develop a trusting relationship that attempts to guide patients in prioritizing health-related goals as well as understanding social determinates that may impact those goals and working with the patient, again, longitudinally to ultimately strive toward improved quality of care and considering that a lot of those activity will take place in coordination with their extended care team or family members."

When asked to describe what her patients' expectations and preferences are for the care she provides, Miranda stated,

"It matters that [patients] perceive I'm looking out for their best interests, versus trying to sell them something or make a switch of medications only because of the good of someone else, but not necessarily them. I know that patients are beginning to be very- where they understand more of like formulary changes and how some are more linked to profit than others or more linked to maybe a requirement, a formulary when sometimes it's not in their best interest. And they want to know that there is just a genuine attempt to sit down with them, talk about what's good for them and have that trust…

You've got one side of [the population I care for] who is, you know, our Medicare folks who, in some ways, are not completely trusting of the system. You know, that's - they're very guarded on what anyone may sell them or what anyone may try to contribute. And as we kind of get to know each other, it kind of lessens that wall between, are you another person that's trying to sell me something or are you another person that may want to be involved in my care. You know, so particularly when we offer something like a delivery service where we would deploy someone to go to their home, not everyone is comfortable with that because it may- you know, who is this person coming into my home with my medications?...

You've got [another] side of [the patient population I care for] who is just- is welcoming to anything that you could offer them, of course. And then you've got another side of the population who, they struggle greatly with other social determinants beyond their health and understandably so where their health is not their main priority. And while they would like to accept anything you offer, there's other challenges in their life, and it is not their priority.

And so as we get to know the personalities and begin to kind of adjust and customize their care but based on priorities of their life, it just begins to make more sense because then we can understand, well, you definitely may benefit from delivery because you don't have a care right now. Or maybe you can't pay for all of your medicines right now

because you just lost your job. But could you pay maybe in six months whenever you do have a job? We can work with you still to get your medicines, and if you can attempt to pay anything, that's better than going without your medications. You know, we can kind of customize those needs for patients that are loyal to the pharmacy, but also are open to working with us in that way…If they don't get the other areas in their life, that is a priority to them, adjusted or a plan in place for it, the rest of their health is going to decline...

This time of year, a lot of people have concerns about, especially if they're turning 65, about what their Medicare coverage is going to look like. And they don't understand that process, and they want someone to sit down with them and just kind of help them understand what they need to do to enroll, what they're looking for in a plan, and we're not insurance agents, so, you know, I always have to say, I'm just here to assist you like a family member would assist you. I can't make a recommendation on a plan, but, you know, here are the plans that are available. This is your medications. This is what it looks like your copays are going to be. And we have some tools in place that help us kind of make that patient customized to see what their plans are going to be, and then we- working with them, we help them enroll in the program. And so that's a very popular reason. That's not necessarily medication focused, but it's something that's confusing and overwhelming to the patient, and they want assistance, and they're willing to go anywhere that that could be offered…

I know that there's a lot of good pharmacies around me, and ultimately, it's the patient's choice to come to me or not, and so I kind of view it as, if I'm not there to help them and kind of deliver something of value and quality, they could leave this pharmacy and go someone else where their needs are met."

Brutus (Ohio Pharmacist)

Brutus is a 60-year old white male who owns and operates an independent retail pharmacy (i.e., health and personal care pharmacy). He provides care for patients with a variety of chronic conditions ranging from diabetes, hyperlipemia, hyperthyroidism, hypertension, and more. Brutus describes himself as a "real student of workflow" when it comes to pharmacy practice who has remodeled his care environment and approach three times over 25 years. He describes his current care model in the text below.

"We do a sit-down face-to-face with every patient, every single time they come into the pharmacy to pick up a prescription. And I physically sit down. So that is- in my mind, that is a 100% commitment to the patient at that moment in time. I am not leaving. I am not talking on the phone. I'm not listening for the phone. I am fully committed to them, and they know that even though it only might be a minute or 30 seconds or 5 minutes or whatever the timeframe is, but they know they have my undivided attention…

We have an interaction with them, and we use those questions just to basically make sure there's no issues. A good example is when a young girl has been on an oral contraceptive for several years, you know, what do you talk about? Well, you talk about blood pressure. They have their blood pressure taken every couple months. When we get 9 months in to a 12-month prescription, we ask that you call for your annual exam because it takes 3 months to get to see an OB for an annual exam. So if you wait until your 11th month, then it will be 3 more months out, and then they have to call in a bridge refill, and it wastes the doctor's office's time. It's inconvenient for the patient. Plus, on the rare occasion that there would be an abnormality in the patient, that they let something go three more months before it was detected…you want to prevent- prevent a predictable problem today. Solve it today. It won't be a problem tomorrow…

We do not have access to electronic health records from anybody because we're independent. But over the years, we have built a reputation that we take care of our patients. We're actively engaged in our patients' health. And physicians that know us, they understand that, and they reach out to us, and they have concerns about the patient or things that they feel that we can help the patients with. So it's, basically, you know, you build trust with the providers…And so, you know, I'm happy when we get those calls because I can guarantee you that they would probably have written the prescription wrong, and then we would have been calling them anyways. So- and they even call us about patients that aren't ours when they're in situations like that because they know we'll help them…

Based on the five-star rating program through PQA(Pharmacy Quality Alliance) through Medicare Part D, our adherence numbers are over 90%, and most of them are over 95%. And we don't do refill reminders and all of the other stuff that they say are necessary to do have good adherence because we engage with the patients on a frequent basis. And so even a patient who doesn't like taking cholesterol meds because they don't really see the value in it, still takes them because we're making sure that they understand the reason and the value of that."

Brutus has health insurance, self-reports not being diagnosed with any chronic illnesses, and does not currently take any prescription medications. Brutus defines PC in his own words as:

> *"[Assessing] the patient individually and their educational level and ability to understand and that kind of thing always has to come into play. You would treat them differently, and you would approach them differently if you knew they were- if you knew the patient well enough to understand their personality…we used to have a- one of our older patients who is no longer with us, but he couldn't read, never told anybody he couldn't read, and he couldn't write. And he could sign his name, but not very well, but we had to make extra sure that he was aware of what was going on because he couldn't read the label. So we had to devise- you know, without embarrassing him, we had to devise strategies to help him understand what he needed to do with his different meds.*
>
> *And, I mean, he was really good with it, but he never told us that he couldn't read, and it was only finding out in a roundabout way that I finally realized that he couldn't read. And so we had to figure out a way to help him. And so he may have been a- he may have had a situation where he has the same diagnosis as somebody else, as you had mentioned, but you have to treat him very differently because he has a different set of needs that are not related to the chronic disease."*

When asked to describe what his patients' expectations and preferences are for the care he provides, Brutus responded with the following.

> *"It depends on the patient. Each patient has a different motivation. It might be a new medication, so they want to learn about the medication and how it's going to solve the problem that they are currently experiencing. It might be a patient who has been on a medication for an extended period of time, and it's not working, or it needs- they're having some adverse effects…So each encounter is different, and it's driven by the patients...*
>
> *Bottom line is I think we show empathy, and we show that we care and that we're willing to engage with them and kind of be partners or help them…I had a student who was rotating through the pharmacy. They had done all of their community work while they were in school at [another pharmacy]. And they said, you know, after like a week they at the pharmacy they said, this is so nice. Your patients don't yell at you.*

And I said, what do you mean, yell at you? They said, oh, our patients yell at us all the time. And I said, well, what do they yell at you for? And they said, well, it costs too much, or we don't have it ready in time, or the insurance didn't cover it or whatever. And I said, well, we have those same problems, but our patients don't yell at us because, you know, we engage them. We show them respect…

You can't approach a patient based on who is paying the bill. You have to approach the patient as this is a human being in front of me that needs my help. I don't care who is paying the bill. I don't care if they're on Medicaid. I don't care if they have issues. It's my job to take care of them. You have to have empathy, and you have to do that…the payment has nothing to do with it. That's why I don't have a cash register near me in the pharmacy because I am not responsible for the money. I am, but that's not my role. My role is to take care of the patient…you may have to have a conversation with them about, well, your insurance didn't cover this, and here's what the cost is and things like that, but that still doesn't mean that you aren't going to care for them in an empathetic fashion…

Some patients are very engaged, very- they want as much information as they possibly can get. Some patients, on the other hand, expect- some patients don't even care. They just do what the doctor says and do what we say and go on their merry way. So I think the dynamic is just whatever the patient says to us whether they agree with the diagnosis, don't agree with the diagnosis, want to take the meds, don't want to take the meds…And our goal is to help you get to the point where you are as good as it can possibly get you…And if whatever we're doing helps to improve that patient's quality of life, then we can make a difference. Even though it might be small, we're making a difference, and that's what makes- to me, that's success…You reach them on a human level, that quality of life, not a chart and a bottle and that kind of thing."

Mary (Washington Pharmacist)

Mary is a 33-year old white female who practices and manages an ambulatory care team embedded in a healthcare system. She cares for patients diagnosed with chronic conditions, especially chronic pain management, on an appointment basis.

Mary has health insurance, self-reports not being diagnosed with any chronic illnesses, and does not currently take prescription medications. Mary defined PC in the following way:

"Understand[ing] the psycho-social baselines and meet[ing] the patient where they're at because…if you're talking to the patient about affording physical therapy for me, in the chronic pain setting, but I don't recognize the fact that they're on a fixed income and that they don't have any discretionary funds to pay for that because they have a high deductible copay based off their insurance plan, and they need to save that money in order to buy their medications or their insulin. I have got to recognize that…we can spit things in recommendations all day to the patients. But without understanding how it is incorporated into their day-to-day lives, it's almost wasted. It's a wasted visit. It's wasted time…There are other things that need to be managed prior to addressing what the provider might think is the most important thing…

"[PC] *is a collaborative care team addressing the healthcare needs of a patient that include- and that team includes the patient and caregivers and family members as well as your pharmacist, physician, nurse, medical assistant, all of that…[the PC] definition doesn't change [based on who you are on the healthcare team], but the lens that you see it through, in terms of what is your role in the patient-centered care, would change …[PC is]everybody contributing to the top of their license. If I defer everything for the physician to execute the interventions on, we're going to wait forever. They're going to get overwhelmed. It's going to feel lonely…*

I think you can provide patient-centered care anywhere, whether it's a dispensing pharmacy or a clinic or a hospital."

Mary also described what she believes her patients expect and prefer in the care she provides with them.

"One, [patients want to] feel heard, two, that they feel that the provider is collaborating with them, and then many, in most instances, you know, shared decision making is implemented. For some patients, they don't want that. They just want to be told, you know, you're the expert. Just tell me what to do, and I'll do it. So it depends on the patient. And then, three, that the patient's needs are met. Whatever they walked into the appointment hoping to get out of it, or whatever their expectations or needs were from their perspective, that they were met in that appointment. And if the pharmacist wasn't able to meet it because it was outside their scope of practice, that the pharmacist took the time to identify who could meet it and set them up for those next steps…

[Some] patients know that they're coming to me for pain management and so their expectations are that I'm going to be knowledgeable and be able to discuss with them the different treatment

types that involve drugs that are related to pain management. So that kind of comes back to the confidence and the expectation that I'm educated and knowledgeable to, again, meet their needs for why they were referred to me…

A patient comes in and they are stating what their number one topic is that they want to talk to you about. And if you don't take the time to address that and understand why that's a priority to the patient, and you breeze past it, and you don't take the time to stop and listen and acknowledge their concern, and you're just like, okay, well, sure, you can talk about that when you see your primary care provider next time, and you just stop there, that doesn't feel very good from a patient's perspective because it makes it seems like I potentially could have just been dismissive to what was important to me- or what was important to them…

But the expectation is also, we have quite a few patients where they are prescribed a new medication, and I get a message from the patient saying, hey, my doctor just gave me blank. Is this safe for me to take? What are the side effects? Does it interact with my other meds? They trust me more than their physicians to give them the most accurate medication-related education, which is great…And so I think those are the- it's nice that they recognize that you're the medication expert once they understand your role."

CHAPTER 5. DISCUSSION

5.1 Discussion for Objective 1

The first objective of this study was to uncover how Patient-Centeredness (PC) is defined and conceptualized in care provided by pharmacists with patients. The results corresponding to this objective in Chapter 4 reveal two important areas for evaluation: (1) similarities and differences between patient and pharmacist in ranking the relative importance of the concepts that make up the PC construct and (2) the TOPPP model conceptualization of the PC construct in pharmacist care with patients.

5.1a Patient & Pharmacist Comparisons of PC Concept Importance

The results produced from the fifth step of the data analysis for Objective 1 revealed moderate to high levels of agreement between patient and pharmacist study participants about the relative importance for 7 of the top 10 superordinate concepts of PC (N.B., statement accounts for residual effects likely due to methodological bias described in the results). This level of congruence in conceptual priorities may be understood as conducive for facilitating PC in care provided by pharmacists with patients.

However, three of the superordinate concepts showed moderate to high magnitude differentials between the two study subgroups about the relative importance to PC. These superordinate concepts were: '*Therapeutic Alliance'* (i.e., patient>pharmacist; Δ=5, I=72%) '*Care Coordination & Integration'* (i.e., patient<pharmacist; Δ=7, I=81%), and '*Care Experience'* (i.e., patient>pharmacist; Δ=1, I=76%). Taken at face value, the results suggest a potentially meaningful disconnect for achieving PC in care provided by

pharmacists with patients. The following sections will evaluate and explore the implications of these differing results.

Therapeutic Alliance Differences

The '*Therapeutic Alliance'* is a key component of PC throughout the overarching healthcare literature as well as in Pharmacy. As noted in Chapter 2, it is understood that a '*Therapeutic Alliance'* could be present in care without PC being achieved, but that PC could not be achieved without a '*Therapeutic alliance'* being present. Therefore, it is concerning that this study's results suggest that patient study participants rated the '*Therapeutic Alliance'* superordinate concept substantially higher in importance than their pharmacist counterparts. This is especially true given the sample selection and inclusion/exclusion criteria sought out pharmacists who exemplify PC in care provided by pharmacists with patients.

There are three potential explanations for this finding, each with corollary implications. First, the result may be attributable to different frames of reference for patients and pharmacists when responding to interview questions. For instance, pharmacist study participants may equally value the importance of their bond with the patient study participants, but gave answers to interview questions based on their summative perceptions formed from the totality of their patients. This assumes that patients who enrolled in the study valued the '*Therapeutic Alliance'* with their pharmacist more than other patients who are under the pharmacist's care. Considering that the care needs, preferences, and priorities for each patient differ, this assumption is not entirely unreasonable.

An alternative interpretation is that the pharmacist study participants do, in fact, value the *'Therapeutic Alliance'* less than their patients, which suggests a suboptimal achievement of PC in care. Future research would be needed to determine if this is the case and how it impacts patient care experiences and outcomes related to Patient-Centered Care (PCC). Such an inquiry might also be able to better answer why this differential existed for the '*Therapeutic Alliance'* but not for other related concepts like the '*Pharmacist as Person.'*

A third and final interpretation is that pharmacists enrolled in the study may under-recognize the value and impact of the '*Therapeutic Alliance'* on patients because of the superordinate concept's subjective nature and development over time. In this scenario, patients over time may begin to feel better about the direction of their health after having formed a '*Therapeutic Alliance'* with their pharmacist whether or not much changed in their medication regimen. Thus, the pharmacist is less able to recognize this improvement and attribute it to the '*Therapeutic Alliance.'*

Care Coordination & Integration Differences

The *'Care Coordination & Integration'* superordinate concept is primarily representative of the meso-level of PC in care. The literature review revealed minimal presence of the care aspects represented by this concept within PC models from the Pharmacy literature. This is even more interesting given '*Care Coordination & Integration'* was the #1 ranked response for the Pharmacist sub-dataset. This suggests a highly under-recognized and under-evaluated element of pharmacist practice that may be especially important to patient experience and outcomes related to PC.

However, this result seemingly suggests a meaningful PC disconnect that interferes with pharmacists providing optimal PCC with patients. It follows that pharmacists in the study could have inappropriately overemphasized the degree of coordination, integration, collaboration, and continuity among their care providers. However, this seems unlikely given the high level of importance both patients and pharmacists assigned the '*Care Experience*,' (i.e., #1 for patients, #2 for pharmacists) which incorporates aspects of the meso-level of care. A seemingly more plausible interpretation is that study pharmacists rated '*Care Coordination & Integration'* as more important because a significant amount of time related to patient care occurs outside of the direct care encounter with the patient. For example, pharmacists may need to overcome barriers to PCC due to a lack of an integrated electronic health record with another care provider the patient sees at a different health organization. This also suggests that pharmacists very much identify PC with the importance of a team-based care approach that is consistent with contemporary healthcare practice. Further research is needed to explore these hypotheses and better clarify the actual presence and meaning for the observed differential between patients and pharmacists about the importance of '*Care Coordination & Integration'* in PC. Future research may also shed light on why macro-level concepts like the '*Strategic Framework*,' which are also more removed from the patient, did not exhibit this differential. One explanation could be that pharmacists feel more familiarity and agency at the meso-level care compared to patients, but both groups similarly feel removed and unsure of how to influence the macro-level forces related to PC.

Care Experience Differences

The '*Care Experience'* superordinate concept presents an interesting case for evaluation, ranked #1 in the Weighted Composite dataset and Patient sub-dataset, and #2 in the Pharmacist sub-dataset. As expected, a discrete analytical approach revealed a high level of agreement between patient and pharmacist study participants (i.e., $\Delta=1$). However, the continuous analysis provided a Perrault and Leigh Index value of 76%, representing notable inconsistency between the importance assigned by patients and the importance assigned by pharmacists. This also represents an inversion of the dynamics seen in the '*Care Coordination & Integration'* concept, given that the patient would be expected to be more attuned toward the patient-facing aspects of care on the meso-level that are less visible and directly experienced by a pharmacist. Thus, it could just be that patients are more familiar with the '*Care Experience'* than are pharmacists who realize that it is very important to patients but do not actually live out the '*Care Experience*.' Additional research with a study design more focused on this question and the associated concrete care activities, behaviors, and processes would be able to better assess the validity, reliability, and meaning of this finding in terms of patient experience and outcomes.

Taken as a whole, there appear to be some differences between what patients and pharmacists view as most important to PC. More investigation is needed in these areas to evaluate the presence of a meaningful disconnect that negatively impacts patient experience and outcome as they related to PC. Alternatively, such research may even justify the necessity for pharmacists to have different PC priorities than their patients to

maximize a comprehensive approach to team-based PCC at the micro-, meso-, and macro-levels.

5.1b Conceptualizing PC in Pharmacist Practice

The results from the final step of the data analysis for Objective 1 produced the "Team-based Outpatient Pharmacist Practice for Patient-Centeredness" (TOPPP) model, which spatially arranges the 13 superordinate PC concepts and seven conceptual groupings informed by the organizational models in PC literature The TOPPP model shows some overlap with both UMPA and PCPS evidenced by several identical or highly related component concepts. However, there were also areas lacking overlap suggesting the TOPPP model fills important gaps in the conceptualization of PC for pharmacist practice due to unfamiliarity with certain traditions in the PC literature. The following sections will explore and evaluate these findings at the micro-, meso-, and macro-levels of the model.

Micro-level

As mentioned in the results, the TOPPP model was directly and significantly influenced by the UMPA at the micro-level. Although some PCPS concepts were partially supported by findings from Objective 1, the UMPA's explicit connection with the overarching PC literature and general elegance were key factors for the incorporation of the UMPA's structure into the TOPPP. Furthermore, four of the ten concepts found within UMPA's PC construct were highly supported by results from Objective 1. These four concepts were the *'Therapeutic Alliance,' 'Patient as Unique Person,' 'Biopsychosocial Perspective,'* and '*Provider as Person.'* It should be noted that the first

three of these concepts are also approximated within the PCPS, albeit with different names and operational definitions that lacked a direct connection to the PC literature (see Figure 26). However, the TOPPP model deviates from the UMPA by consolidating several of its component concepts to increase parsimony, explanatory power, and generalizability of the model. These modifications reflect this study's broader review of the PC literature beyond the PCPM and Medicine traditions as well as its use of patient and pharmacist sourced data.

The '*Therapeutic Alliance'* concept is a good starting place for describing these conceptual consolidations. The literature review shows that the UMPA's concepts of '*Trust'* and *'Building a Relationship'* as well as the PCPS' '*Sustained Relationships'* all represent ideas that are sufficiently and succinctly captured by the '*Therapeutic Alliance*' superordinate concept. It follows that consolidating these concepts into the *'Therapeutic Alliance'* improves the parsimony of the PC construct while strengthening the links to the overarching PC literature.

Less straightforward is the relationship between the '*Therapeutic Alliance'* and the UMPA's '*Therapeutic Relationship*,' which comes out of the PCPM literature. The UMPA shows the '*Therapeutic Alliance'* as being contained under the '*Therapeutic Relationship*,' but this is an inaccurately inverted depiction based on the results of this study's literature review. Instead, the '*Therapeutic Relationship'* is derived from the '*Therapeutic Alliance,'* and could even be classified as a subordinate concept. This inaccurate representation is a microcosm of a common pattern in the Pharmacy literature, where PC is seen as a component of the PCPM rather than the other way around. However, this framing is inconsistent with how Cipolle, Strand, and Morley write about

the '*Therapeutic Relationship*,' stating that pharmacists should organize thinking, decision, and actions around the goals of patients rather than their knowledge of the medication. Thus, the erroneous inversion is likely a consequence of the historically siloed and disconnected approach to PC research and practice that hid the lineage and relationships of concepts from different professions. However, these hidden connections are growing more visible as contemporary healthcare practice and research become more interprofessionally integrated and collaborative. This begs several questions, such as what are the implications of including or excluding the '*Therapeutic Relationship'* concept within the PC construct for pharmacist care with patients? Additionally, why should pharmacists use PC terminology that is different or modified from the rest of healthcare? What purpose or value does it have in serving the patient in the contemporary, non-siloed health environment? Is our role within this environment as pharmacists first and healthcare professionals second? The following statement from a Washington pharmacist weighs in on these queries.

> *"If [pharmacists]are really practicing at the top of their license, [pharmacists] are holistically caring for the patient, not just being the medication expert and addressing the chief concern or the reason for the visit…[PC] is a collaborative care team addressing the healthcare needs of a patient that includes- and that team includes the patient and caregivers and family members as well as your pharmacist, physician, nurse, medical assistant, all of that… [the PC] definition doesn't change [based on who you are on the healthcare team], but the lens that you see it through, in terms of what is your role in the patient-centered care, would change …and what I've seen from our organization is by aligning the pharmacists with all the other providers on the team, it really brings the pharmacists out of silo of that, oh, I'm from the pharmacy department. I'm different than the rest of you. It really makes it more of a pharmacist is a provider, just with a different credential and then that's it…I'm using the basic skills that all healthcare team members are technically trained on...And so I think there's just as many barriers within our own profession of trying to be all-inclusive [as the medication*

> *expert] and not taking the time to understand how to get people to the [patient care] skill set needed to truly work at the top of their license [as providers].”*

This excerpt is given by a person who sees themselves more as a healthcare provider with a Pharm.D. credential than as a pharmacist defined by their medication expertise. While recognizing that PC can be perceived differently based on one’s background, expertise, or role on the healthcare team, the PC construct is fundamentally the same and should be at least understood as such, even if it is not practiced accordingly for good reason. This idea is beautifully captured by an ancient parable about an elephant that is subjectively experienced differently by a group of blind men who are unfamiliar with the large animal.[281] The elephant is too big and complex for any one man to capture its true essence from their own limited experience, given that the characteristics of the elephant’s tusks are dramatically different from its tail. If the PC construct is like the elephant, then pharmacists limiting their understanding of PC is like blindness. The perspective from which one views and interacts with an elephant (i.e., care contexts, professional roles, etc.) justifiably explains differences in the concrete experience, action, or behavior around the elephant (i.e., PCC practices), but it should still be recognized as an elephant. The point is there may be a better way to highlight the pharmacist’s professional identity and distinctive practices within PC conceptualizations that avoid potential barriers to interprofessional understanding, communication, integration, and collaboration caused by including the ‘*Therapeutic Relationship*’ in PC conceptualizations. A close examination of the ‘*Therapeutic Relationship’* and ‘*Therapeutic Alliance’* reveal they both emphasize the bond between patient and provider in care. What distinguishes these concepts is the expressed purpose of this bond; the

'Therapeutic Alliance' aims to establish "common therapeutic goals" while the '*Therapeutic Relationship'* leads to optimization of the "medication experience." With this in mind, one might argue that the optimization of the "medication experience" is actually one specific type of "common therapeutic goal." In this sense, the '*Therapeutic Relationship'* doesn't need to be separated from the '*Therapeutic Alliance,*' and the '*medication experience*' can stand as its own concept. Under these assertions, the '*medication experience*' is also more appropriately classified under the "Care Moderator*"* conceptual grouping (i.e., factors that represent the conditions under which interventions influence outcomes and goals). Thus, consolidating the concept of the '*Therapeutic Relationship'* into the '*Therapeutic Alliance'* and organizing the '*medication experience*' under the "Care Moderator*"* conceptual grouping represents an optimal conceptualization that is consistent with this study's data, the overarching healthcare literature, and contemporary healthcare practice.

The '*Therapeutic Alliance'* represents just one area of conceptual consolidation that took place to develop the TOPPP model. A list of several other mergers for the purposes of parsimony, explanatory power, and generalizability are identified in the following list.

1. The UMPA's '*Required Skills'* concept consolidated into '*Professional Competency'* to improve parsimony and explanatory power by capturing not just the presence of necessary technical and pharmacotherapy skills in pharmacist practice, but also the appropriate application (and non-application) of these skills like reasoning, judgment, knowledge, continual growth, etc.

2. The PCPS's '*Patient Empowerment'* concept consolidated into '*Shared Power, Responsibility, & Common Ground'* to add explanatory power that extends beyond just self-management elements to include decision making power dynamics and establishment of common goals. It should also be noted that UMPA does include operationalizations of the '*Shared Power, Responsibility, & Common Ground'* concept in its "Pharmaceutical Consultation" category, but not including it as a theoretical concept compromises the fidelity, robustness, and meaning of the "Shared

Problem Defining" and "Shared Decision Making" activities it contains. Additionally, failing to explicitly identify '*Shared Power, Responsibility, & Common Ground'* reveals two important features of PC as they relate to the PCPM. First, it explicitly recognizes that both PC and the PCPM view the pharmacist as responsible for providing care and therapy that is highly aligned with a patient's goals, resource capacities, and accessibility constraints. The resulting "patient-centered adherence" is seen as a potential process measure for whether PCC occurred rather than an outcome in and of itself. Second, it highlights a distinction between PC and the PCPM for patient engagement. The PCPM process identifies patient engagement as patient responsibility, while the PC literature sees it more dependent on patient preference.

3. The UMPA's '*Empathy*' concept consolidated into the '*Pharmacist as Person'* to increase parsimony, explanatory power, and consistency with the overarching PC literature. Specifically, '*Pharmacist as Person'* is preferred because it already approximates by the *'Empathy'* concept through the '*Sympathetic Presence'* sub-concept from the Nursing literature, while also extending to other important elements including '*Job Commitment,' 'Interpersonal Skills,' 'Knowing self,*' and '*Clarity of Beliefs & Values*.'

4. The UMPA's *'Health Promotion*' concept consolidated into the "Care Mediators*"* conceptual grouping (i.e., factors explaining why interventions produce outcomes and goals) to better incorporate other important aspects like disease prevention, *'Information, Education, & Communication*,' and '*Continuity & Transition'* that explaining how desirable health outcomes and goals are arrived at. It should be noted that the "Care Mediators" conceptual grouping sits at the border between the micro- and meso-levels because it contains factors and dynamics at play in the care encounter between the patient and pharmacist and also at the level of institutions.

5. The UMPA's '*Context & Time*' concept consolidated into the "Care Moderators" conceptual grouping (i.e., factors that represent the conditions under which interventions influence outcomes and goals) to improve the PC construct's parsimony and explanatory power by better accounting for the '*Patient's Feelings of Wellbeing*,' '*Physical Environment*,' '*Care Experience*,' and '*Care Access*.' Also, the UMPA's placement of the '*Context & Time'* concept alongside the '*Therapeutic Alliance'* concept, while the '*Health Promotion'* concept is under the "Patient" category, does not reflect the high level of co-occurrence between '*Context & Time'* and '*Health Promotion'* that was found in this study. Both of these concepts more appropriately fit within the *"Care Moderators"* conceptual grouping at the border between the micro- and meso-levels because they represent factors and dynamics inside the care encounter and also at the level of institutions.

Meso-level

The Meso-level of the TOPPP model is represented primarily by the purple ring encircling the concepts previously listed in the Micro-level section. However, as previously mentioned, the "Care Mediators and Moderators" conceptual grouping straddles the border between the Micro- and Meso-levels given their component superordinate concepts represent factors at play in both levels. The relationship between the Micro- and Meso-level is further articulated by the solid and dotted black arrows that connect concepts at these two levels. This depiction reflects patterns in the study data that were consistent with Rathert's modified Donabedian model connecting care process concepts to outcomes (i.e., "Desirable Goals & Outcomes).

The PCPS contained the only meso-level concept for PC in the pharmacist PC literature, which was the '*Provider Collaborations'* concept. However, the name and operational definition of the concept were not retained for the TOPPP model because of its weak linkage to the overarching PC literature and minimal support from the study's data. Instead, *'Provider Collaborations'* was consolidated into the '*Care Coordination & Integration'* superordinate concept for parsimony and explanatory power because it better captured other important sub-concepts like '*Healthful Culture,' 'Effective Staff Relationships,' 'Innovation & Risk-taking Potential,' 'Supportive Organizational Systems,' 'Appropriate Skill Mix,' 'Shared Decision-making Systems,'* and '*Team Power Sharing*.'

It should also be noted that although the UMPA did not contain a meso-level concept, the PCPM paradigm it grew out of identifies a "Practice Management System" as a component of PCC, which includes all physical, financial, and human resources

needed to deliver and document the service. Even though this is not articulated in-depth, this inclusion demonstrates that the PCPM does recognize the role at the meso-level of care.

Macro-level

Finally, study findings supported the inclusion of four macro-level seminal PC concepts in the TOPPP model from the overarching healthcare literature which were completely lacking from the UMPA and PCPS: '*Strategic Leadership,' 'Health & Social Care Policy,' 'Strategic Frameworks*,' and '*Workforce Developments.*' These four concept codes were the least frequently identified concepts from the PC literature, likely due to the latent quality of macro-level factors in patient-pharmacist care encounters. However, these concepts were included in the TOPPP model because the overarching literature and key anecdotes indicate they represent a significant, under-studied, and growing area of PC research and practice policy that will impact pharmacist practice in the near future. As shown in the selected exemplary excerpts, these superordinate concepts primarily act as forces applied upon healthcare institutions and systems on the meso-level of care, but there are also some pathways for indirect feedback on the micro-level (e.g., '*Health & Social Care Policy'* on "Patients" via "Care Moderators;*"* '*Workforce Developments'* on "Pharmacists").

It should also be noted that although the UMPA did not contain a macro-level concept, the PCPM paradigm it grew out of identifies a "Practice Management System" that includes clarity in the standards and expectations for care practices and the means to reward the practitioner and financially support the longevity of the practice which are represented in the four superordinate concepts in the TOPPP model.

Desirable Goals & Outcomes of the Patient as a Person

"Desired Goals and Outcomes of the Patient as a Person" is the conceptual terminus of the TOPPP model, defined as what matters to patients concerning the characteristics, preferences, expectations, and goals for their care with the pharmacist. The goals and outcomes of the patient should supersede any pre-defined outcomes from other healthcare stakeholders (e.g., pharmacist incentivized population-based clinical targets, payer metrics, etc.). This flips the idea of adherence on its ear because the focus is on the provider adhering to a patient's priorities, preferences, expectations, and goals rather than a focus on the patient adhering to a provider's plan. For example, a patient with uncontrolled diabetes type 2 and a history of heroin abuse may have a primary goal of living a healthy and sober life. The patient wants to reduce the health risks from diabetes but also has a concern about using medications delivered via needle because of a concern for relapse. At the same time, the pre-defined health goals for patients with uncontrolled diabetes from a health-system/clinical guidelines/healthcare payer standpoint is to push for a pre-determined, population-based hemoglobin A1c level and to optimally reduce the patient's risk of cardiovascular events, blindness, kidney failure, and limb amputation, which is often best accomplished using injectable insulin medications. In this instance, the patient's most desirable goal and outcome under the TOPPP model would be to minimize the risk of life-altering health events (e.g., cardiovascular events, etc.) while respecting the patient's concerns and experience related to opioid relapse. This is best accomplished with oral medications for diabetes rather than an injectable insulin medication. Traditional measurements of medication adherence would not account for this nuance, highlighting the problem from using medication adherence as a proxy for a

health outcome rather than a "Care Mediator" that must be interpreted through its relationships with '*Biopsychosocial Perspective,' 'Therapeutic Alliance,' 'Provider as Person,*' and other PC concepts that are a greater part of why patients seek pharmacist care (i.e., the experience and outcome of pharmacist care with patients is much more than just medication adherence).

Within this example, it is also important to note that the priorities, preferences, and experience of care that translate into its value from the patient perspective are also co-dependent on the same elements from the perspective of the pharmacist providing care; that is to say, the co-created priorities, preferences, and experiences generate the value for both patient and pharmacist. This is self-evident when one considers that two different patients receiving care from the same pharmacist can have substantially different priorities, preferences, and experiences in their care, with the same being true for two pharmacists caring for the same patient. For example, using the example of the patient with diabetes and a history of drug abuse from above, a patient's priorities, preferences, and goals for care from a pharmacist is dependent on the pharmacist they are paired with. A pharmacist with excellent interpersonal communication, self-reflection, and shared decision-making skills who focuses on establishing a '*TherapeuticAalliance'* with the patient is more likely to see the context through the patient's eyes and provide care that is optimal for the patient (e.g., oral diabetic medications) than one who is time and task-oriented who focuses on just following the clinical guidelines for starting insulin. Neither pharmacist approach in this care scenario is intrinsically better or worse on its own; the best approach is dependent on the patient's optimal priorities, preferences, and goals. The preferences and expectations of PC will be explored more fully in the next section.

5.2 Discussion for Objective 2

The second objective of this doctoral thesis was to describe, interpret, and compare patient preferences and expectations of PC in care provided by pharmacists with patients. The corresponding results revealed three patient archetypes related to PC preferences and expectations: '*Partner,' 'Client*,' and '*Customer*.' Transposing these findings on the existing PC literature in Pharmacy found high congruence for the '*Partner*,' but little recognition or examination of PC preferences corresponding to the '*Client'* and '*Customer*' archetypes. This suggests the need for more widespread recognition in Pharmacy that PC is not just about partnership. Instead, patients have complex sets of preferences and expectations derived from their individualized goals, demands on their everyday life (capacities for time, finances, cognition, etc.), values, and belief systems that may not be conducive or appropriate for partnership. The following excerpt from a pharmacist in Minnesota provides an example of being attuned to the care preferences and expectations of a patient and the importance of initiating care encounters by collecting this information from the patient.

> *"I don't know that we do enough as healthcare providers to say, is this too much information [for a patient]? You know, how do you like to make decisions about your health? Do you like to be presented with options, or do you like to be told what your healthcare provider thinks is the best option? I mean, think about- you know, I've never been asked that [as a patient]. But I try to ask patients that, and it helps me to know how much information they want, and how they want to make those decisions. And sometimes they just tell me they want a little bit [of information]. I mean, I can think of a patient a few weeks ago that was having surgery with really high blood sugars. And so I said to him, okay, I can give you all of the options, or I can tell you, we can be really aggressive, or we can do this a little bit more slowly, what do you want to do? And he's like, I don't want to know the options. I just want to be aggressive. And I said, okay, well, then let's go that route. And so just trying to work with them to find out how much information they really want."*

In the scenario described, the pharmacist is not trying to force a dialogue or "Co-created Experience" on the patient; they are appropriately listening and acting on what the patient prefers. Of course, there are a large number of patients with poorly managed chronic conditions that interfere with these patient goals, life demands, values, and beliefs who would, and do, greatly benefit from a partnership. However, it is a mistake for pharmacists to assume that PC and PCC that lead to optimal patient goals and health outcomes goals must and can only be achievable through a partnership.

For heuristic purposes, the relationship between the three archetypes might be thought of as '*Customer'*-*'Client'*-*'Partner'* continuum. No point within this continuum should be seen as universally more desirable or inherently better than another. Instead, the relative value of each archetype is completely dependent on its goodness of fit with the preferences and expectations of the patient at any given point in time. This means that the guiding archetype in a patient-pharmacist relationships may change over time depending on the patient's health status, life events, goals, bond with their provider, and other factors that affect a patient's care preferences and expectations. Again, this dynamic of PC expectations and preferences requires that pharmacists never categorize a patient as an archetype, and only use the concept as a guide for optimizing each care encounter.

Another important note is that pharmacists must make their patients aware of potential modifications in the "Nature of the Relationship," the level of "Care Customization," and other differing aspects of archetypes for PC preferences and expectations. Patients can only prefer and expect what they reasonably imagine based on previous experiences; therefore, it is essential that patients realize that other possibilities

exist that may more optimally fit their goals, needs, and values. This idea is expressed in the following excerpt from a pharmacist in Florida who practices in a clinic setting.

> *"When I first meet a patient, they don't even understand like why they're talking to a pharmacist in [the clinic] setting because it's kind of a non-traditional setting for a pharmacist to be in. So I go in kind of always assuming that I'm going to get that question and that the patient isn't going to understand it at first. So I use that as sort of an opportunity to help the patient understand like pharmacists, we can do more than just count by five, you know, behind the counter. And even, of course, those pharmacists do a lot more. But even educating them about what I do in the office and what pharmacists everywhere can do for them, I use that as an opportunity to help them understand that aspect and then that helps, that usually helps a lot."*

This statement recognizes that many patients may be unfamiliar with the '*Partner*' and '*Client*' archetype, but it is evident from the literature review that PC expectations and preferences represented by the '*Customer'* archetype also places the findings from this study square in the middle of two contentious debates; one about the meaning of PC in the overarching literature and the other over the identity of pharmacist practice within the pharmacist community.

As covered in the literature review, there are wide and varied meanings and use of PC terminology. Much of this can be attributed to naivety, but there are also some fundamental disagreements over the PC construct's conceptual boundaries.[20] One interpretation of PC within the literature links its meaning with market liberalism values that focus on offering patients more independent power to choose and more options from which to select.[15] Many medical contributors in the PC literature strenuously oppose this conceptualization and see it as a corrupt violation of the ethos of PC, which emphasizes a biopsychosocial approach, respect, and compassion. They go on to argue that the

minimization of this core ethos leads to care scenarios where patients with cancer are overtreated or necessary dialogues between patients and providers in borderline treatment decisions are eliminated.[20] At the same time, other contributors from residential and nursing home settings see little wrong with the connotations that market liberalism values.[20,203]

The differences in these PC interpretations also mirror a longstanding tension and competition in Pharmacy tracing back to as early as the late 19th century about whether Pharmacy should be defined and practiced as a healthcare "profession" rooted in clinical practice or as a "commercial enterprise" anchored by good business practice.[282] In many ways, this tension and competition still exists today and is unlikely to go away.

On the one hand, the contemporary pharmacist community colloquially refers to itself as a profession and fulfills several criteria associated with the label, including adherence to a common ethical philosophy, standardized training, possession of specialized knowledge and expertise, and societal recognition and trust.[33,283] At the same time, there is little doubt that there are significant business interests in the practice of pharmacy and there is a sizable segment of the public that primarily associates Pharmacy with a retail store to purchase their medications as conveniently (i.e., quick, accessible, easy, multiple product options, minimized pricing, etc.) as possible just like any other consumer good or product.[284,285] This is further evidenced by more commercial-minded companies focused on efficiency and convenience (e.g., Amazon) entering the medication delivery space.[286,287]

It is the opinion of this author that the definitive answers to these debates should rest within the agency and benefit perceived by each individual patient, rather than a

desire for ideological purity in defining global features of pharmacist practice. The longevity and nuance of the "profession" versus "business" debate in Pharmacy speaks to the diversity of needs, goals, and values of patients, thus requiring different roles, responsibilities, and activities that should be undertaken by the pharmacist. The practice of pharmacy can and should not be solely one or the other. Said another way, pharmacist practice must respect, do no harm, and optimize the welfare of their patients,[278] while also having a viable business model; one cannot and should not exist without the other.

Extending this answer to the debate surrounding the boundaries of PC in the overarching healthcare literature, it is clear from the literature that there are shared conceptualizations and ethoses within the PC construct across disciplines. However, there are also different areas of emphasis depending on the role, responsibilities, and activities of the provider. Just as physicians and nurses have unique roles, responsibilities, and activities that emphasize specific components of the PC, so too does pharmacist practice highlight that some patients hold preferences and expectations consistent with '*Customer'* and '*Client'* archetypes. In this context, the key boundary is when the pharmacist crosses over from using the archetype to guide care consistent with the patient's needs, goals, and values without employing it in opportunistic, self-serving, and tokenistic ways.

The identification of three relationship archetypes associated with PC preferences and expectations sets the stage for future research for measuring the care experiences that fall short, fulfill, or exceed these expectations. This information, taken alongside the development of the TOPPP model, fills a theoretical gap to enable a sturdy foundation for future operational measurement and evaluation of PCC practices.

5.3 Discussion of Qualitative Trustworthiness of the Results

A detailed summary of the study sample as a whole and a description of each study participant was presented in Chapter 4 to maximize the trustworthiness of the study's findings, as outlined by Guba and Krefting.[271,272] The following section will evaluate the credibility, transferability, dependability, and confirmability of the findings produced by this study.

Credibility is represented by immediate recognition by individuals sharing experiences consistent with the PC conceptualizations, preferences, and expectations described in this study. Based on the protocols used for potential participant identification and recruitment it can be reasonably expected that U.S. pharmacists with at least 10,000 hours of experience providing care consistent with the PPCP in the outpatient setting as well as the patients who are cared for by pharmacists with this characteristic will have experiences that resonate with the study's findings. Although other criteria for inclusion and exclusion were a part of the study recruitment and enrollment protocol, it is not reasonable to expect that all U.S. pharmacists and patients involved in outpatient care who are above the age of 18 years old and managing multiple chronic conditions will find these results credible. Even though this is not reasonable to expect, it is hoped that this would be the case more often than not, suggesting a high prevalence of PC in care delivered by pharmacists with patients. It is also reasonable to expect that the credibility of this study's finding will increase over time as PC pharmacist care practices continue to expand, and as increasing numbers of individuals receive care provided by pharmacists with patients.

Transferability refers to how well study findings will fit other contexts, and dependability refers to describing and tracking sources of variability. Based on the demographic descriptors of study participants, it can be reasonably expected that findings from this study are more transferable and dependable for generating and examining (or testing) hypotheses for studies involving care populations: (a) in U.S. outpatient care settings, (b) in states with scope of practice laws that allow for modification of drug therapy, (c) that are more female and White/Caucasian, (d) with pharmacists from the Millennial Generation who do not have a chronic disease or take any prescription medication,[280] (e) who have more than one chronic illness, have health insurance, and take more than five prescription medications, and (f) who self-report not being worried about their health.

CHAPTER 6. CONCLUSIONS

General Findings & Recommendations

General Finding from Objective 1

The first overarching finding from this study is that PC in pharmacist practice is (a) broader in scope, (b) more granular in specificity and, (c) more connected to other healthcare disciplines than currently conceptualized.

The scope of PC conceptualizations in the Pharmacy literature are limited almost solely to the patient and pharmacist encounter at the micro-level of care. The results from this study and a review of the overarching literature indicate that significant elements of PC extend to the meso- (e.g., level of health system institutions) and macro-levels (e.g., legislation, accreditation, workforce, etc.) of care as well.

The granular specificity of PC conceptualizations in Pharmacy are also limited by concepts that are unnecessarily redundant, suboptimal in explanatory power, and not conducive to informing valid and reliable measurement. The results from this study better organize and clarify the components and relationships of concepts making up PC in care provided by pharmacists with patients.

Finally, this study found that PC conceptualizations in Pharmacy primarily drew from the seminal Medicine PC literature, with little influence from or approximation of seminal concepts in Nursing and Health Public Policy. This exclusion unnecessarily limits the generalizability and value of PC in contemporary approaches to healthcare practice that are team-based and interprofessionally integrated. The results from this study produced a conceptualization of PC (i.e., TOPPP model) containing the most relevant and important concepts to pharmacist practice from the broader PC literature.

Based on these findings, the author of this study proposes several recommendations to explore, evaluate, and improve the quality, cost, experience, and outcomes of care provided by pharmacists with patients. The aim of these recommendations is to more comprehensively meet the needs of patients from the pharmacists who care for and with patients, the care institutions where patients are provided care, and policy and regulations that impact the care delivered to patients.

Recommendation 1: Ground PC operationalizations in pharmacist practice to theoretical conceptualizations in the literature.

Developing PC measurement instruments, care practices, and quality improvement initiatives independent of the theoretical literature leads to frivolous and opportunistic uses of PC language that are contrary to the construct's ethos and goals. Pharmacists can improve care and research quality by linking operational measures, practices, and evaluations of PCC to the theoretical conceptualizations of PC. Doing so will improve the fidelity, testability (i.e., measurement validity and reliability), falsifiability, parsimony (i.e., simplicity balanced with precision), explanatory power (i.e., quality and quantity), predictive power (i.e., important, useful, precise), and heuristic value (i.e., leads to new hypotheses and ideas) of PC operationalizations. Additionally, it will improve the ability of pharmacists to demonstrate their value on the micro-, meso-, and macro- levels of care.

Recommendation 2: Deepen and expand the PPCP to better capture the meaning of PCC.

The PPCP is a key advancement for the pharmacy profession in that it establishes a "consistent process of care in the delivery of patient care services" that enables better

recognition, accessibility, expectations, and utilization of pharmacists by patients and providers as reliable medication experts critical to managing the chronic disease. It can further be adapted to represent how this care process applies to the micro-, meso-, and macro-levels of care. Furthermore, adjusting the language from "Patient-Centered Care" to "Person-Centered care" may more appropriately place the focus on pharmacists caring for the person in the context of their life, as opposed to caring for the patient within the context of their disease. Additional considerations may include better depictions of the concepts relevant to the patient-pharmacist relationship (e.g., *'Pharmacist as a Person,' 'Therapeutic Alliance,'* etc.) by incorporating use of the UMPA model's pictograph representing this relationship (see Figure 15, also represented in Figure 27 of the TOPPP model). This would better demonstrate that the PPCP recognizes the subjective qualities of the individuals carrying out the objective and standardized steps of the care process, not just the professional competency and the standardized care process.

Recommendation 3: Pharmacists become proactive agents in the operationalization of PCC in pharmacist practice, particularly on the Meso- & Macro-levels.

The operational practices, measurement, implementation, and evaluations of PC are still being refined by health systems, policy/regulatory bodies, and other decision-makers especially at the meso- and macro-levels of care. Pharmacists must take an active role in identifying, articulating, and advocating their optimal role, contributions, and value related to PC. This includes active engagement with healthcare payers like CMS, which has begun incorporating PC measures into its payment scheme.[288] Another example of this recommendation is the Pharmacy Quality Alliance's (PQA) emphasis on the meaningful involvement of patients in PC measure development and implementation.[289]

Additional efforts like these are needed to help operationalize PCC in pharmacist practice before they are set in stone without valuable contributions from voices within Pharmacy.

Recommendation 4: Inherently value PC as an outcome rather than a process measure that is a means to an end.

Common understandings of health outcomes primarily refer to biomedical markers like hemoglobin A1c, Atherosclerotic Cardiovascular Disease (ASCVD) risk scores, and low-density lipoprotein (LDL) cholesterol that have been pre-defined according to the values and goals of health systems or payors. Under this perspective, PCC is a process measure leading to desirable numbers for these markers. This study suggests that PC and PCC should be understood and valued as outcomes in and of themselves because they best reflect what matters most to the patient, rather than just a means to an end for a system or payor goal. For example, a patient's desirable outcome may be to live a fuller and confident life, which leads them to act and behave in ways that produce a hemoglobin A1c value associated with an acceptable risk of a health event to them. This is much different than starting with a pre-defined hemoglobin A1c value that is desirable for the patient that may have a downstream impact on the fullness and confidence in which the patient lives their life. Another example is adherence measures, which traditionally focus almost solely on whether a patient follows the instructions of their care plan without accounting for how that care plan was developed. This also has implications for pharmacist care that works "with" the social and behavioral determinants of health of their patients, rather than "despite" them.

General Finding from Objective 2

The second overarching finding from this study is that PC in pharmacist practice is achievable in a variety of outpatient care settings and contexts, especially with careful recognition of the varying preferences and expectations of the patients participating in and receiving care. Patients prefer and expect different qualities (e.g., "Nature of Relationship," "Care Customization," "Communication Type," "Longevity," "Source of Value") in their care that may change over time with health status, life circumstances, and other factors. The specific settings, contexts, and general approaches that pharmacists use to provide care may, therefore, be more or less conducive to PCC for any particular patient at any given time. At the same time, all pharmacists are capable of fulfilling PC in care with patients.

Recommendation 5: Pharmacists should practice PC processes together and consistently, but not in the same way for each patient.

This recommendation may seem ironic, but it makes an important distinction that prioritizes the needs, preferences, and values of patients above ideological purity. The profession of Pharmacy serves a diverse population and care should look different accordingly, but still can and should identify as one profession with consistent care processes. There is room in Pharmacy practice to adhere to professional standards and partner with patients, while also meeting customer demands like a business enterprise. Pharmacists, as well as other healthcare stakeholders, can also be more attuned to organizing care by using information relevant to patient and compatibility in terms of preferences and expectation archetypes as well as personal traits relevant to PC.

Recommendation 6: Explore connections between patient preference and expectation archetypes with the 'Therapeutic Alliance.'

The '*Therapeutic Alliance'* concept refers to, "developing common therapeutic goals and enhancing the personal bond between doctor and patient" and is a necessary and important aspect to PC. Mead & Bowers assert that a '*Therapeutic Alliance'* could conceivably be present without PC being achieved, but that PC could not be achieved without a '*Therapeutic Alliance'* being present. The identification of patient preference and expectation archetypes from the results of this study present an interesting avenue for exploring the nature and depth of the patient-pharmacist bond represented by '*Therapeutic Alliance'* in PCC. This is particularly true for the *'Client'* and *'Customer'* archetypes which are not traditionally thought of as consistent with PC. Expressions of trust in and feeling cared for by the pharmacist from the patient are seen as representative of a '*Therapeutic Alliance.*' Under this premise, it is conceivable that patients could still trust and feel cared for by their pharmacist even if they don't have the depth and co-created experience of partnership often associated with the *'Therapeutic Alliance'* and PCC. This degree of intentionality may also have implications for how pharmacists are trained to think about ethics and communicate with patients and each other.

Assumptions & Limitations

Assumptions

This study was conducted under assumptions of qualitative research, which assume that several subjective realities are contained within the human experience and that adequate description can represent them in ways that are applicable and consistent with one another.

This study also operated under the assumption that the PPCP framework and its component concepts were applicable to all settings where care is provided by pharmacists with patients.[22] It also assumed that findings from research incorporated into the literature review were produced using scientific best practices and ethical standards. This is especially important to advancing the understanding and benefits of PC and PCC given the undisciplined, naïve, and potentially self-serving uses of the terminology in healthcare practice, research, and policy.[5,9,11–15,20] Finally, this study assumed that patients and pharmacist-participants gave responses in interviews that were honest, accurate, and consistent reflections on the study topic.

In determining the relative importance of PC concepts to patients and pharmacists, it was assumed that PC concept codes more frequently applied to study excerpts were more important and relevant than codes less frequently applied.

Limitations

There are four notable limitations of this study; three related to its methodological design and one related to selecting a theoretical conceptualization of PC. First, the use of a semi-structured interview format with stem questions informed by the existing PC literature had the potential to "cue" responses from research participants that were desired by the researcher. This potential bias was mitigated by developing interview stem questions with neutrality in mind and keeping a field journal with entries after each interview that reflected on the likelihood of this bias based on respondent answer patterns and coherence. It should also be noted the effects of conducting this interview over the phone are unknown and could have either mitigated or exacerbated this limitation. The Co-PI not being in the same physical space as the study participants during the interview

may have limited unintentional non-verbal cues from the Co-PI being delivered to the participant. At the same time, this medium also limited the ability of the Co-PI to assess any non-verbal cues in responses from study participants that may have been important for interpreting meaning. This potential limitation was mitigated by frequent checks for understanding during the interview, where the Co-PI repeated their understanding of study participant responses in their own words to confirm there was a proper interpretation of meaning.

Second, the transferability of the study's findings may be limited by its sample selection process and size. A nominated sample generated from a key information network was used to maximize transferability but may not be truly representative of optimal PC in care provided by pharmacists with patients. This limitation was minimized by requiring two de-identified care plans from pharmacist study participants that could be assessed for consistency with the PC literature as part of their enrollment eligibility. Furthermore, the in-depth qualitative nature of data collection limited the size of the sample; thus study results are expected to be most representative of persons and populations matching the descriptors of the study participants. A dense description of all study participants is provided in the first section of the results section to allow future researchers and practitioners to evaluate and account for the applicability of the findings to other contexts.

The third notable limitation is inherent to the use of Directed Content Analysis, which biases study findings towards evidence supporting PC models from the literature review that were incorporated in the methods of investigation. This is an inherent bias of this analysis technique, but was mitigated by the researcher's use of a field journal to

reflect on possibly hidden concepts, a 'step-wise replication' process with a second coder less familiar with the PC literature, and a code-recode procedure where the Co-PI coded the data in full two times separated by two weeks so as to compare the reliability and validity of the results. Each of these steps improved the dependability and confirmability of the study.

The fourth notable limitation to this study was the selection process of PC construct models for the literature review, which are a fraction of all models contained in the research space that were developed for differing purposes (e.g., research measurement, practice use), populations (e.g., age, disease), care settings (e.g., outpatient, inpatient, nursing home), professional disciplines (e.g., Medicine, Nursing), and more. In developing the literature review and methodology, priority was given to PC conceptualizations that were temporally closer to the origin of the construct, incorporated assumptions from professional disciplines, and more amenable to measurement and research. This was in line with the study's focus on the discipline of pharmacist practice, measurement of the PC theoretical construct, and desire to ground findings in the seminal roots of the literature. As such, findings from this study may be less applicable to stakeholders less concerned with these criteria.

Future Research

The findings from this study open numerous avenues for hypothesis generation and future research into pharmacist-delivered PCC (e.g., best practices, professional training, measurement validation, system design, value-based payment assessments, etc.) but there are two areas that are most feasible and necessary; one arising from each respective objective.

First, operational field testing of PCC informed by the TOPPP model's conceptualization of the PC construct from Objective 1 is needed to investigate the model's truth value (i.e., internal validity, credibility), applicability (i.e., external validity, transferability), and consistency (i.e., reliability, dependability) for pharmacist-delivered PCC in outpatient practice contexts and chronic disease management. [271,272] This requires an evaluation of the relationships between and among the TOPPP model's concepts, including the outcomes they produce. Empirical evidence from the broader PC literature indicates the need for "triangulation" when making these assessments, meaning the use of a variety of data collection instruments, sources, and operationalizations most appropriate to the deployment context (e.g., care setting, disease states, population demographics). This is necessary because there is no single "best" way to operationally measure PC, and therefore a careful consideration of the specific context being examined must take place.

For example, an evaluation of activities and behaviors operationalizing the *'Therapeutic Alliance'* at the micro-level of care between pharmacists embedded in an internal medicine practice and patients with diabetes could triangulate PCC using different types of data. One instrument could objectively track behaviors in encounters through direct observation, another that surveys the patient and pharmacist about the care experience, and a third that retrospectively review health record documentation and patient-reported outcomes. The specific actions observed could be identified using the Pharmacy Practice Activity Classification (PPAC; organizes all pharmacists' care activities into 14 classes within four domains),[290] the surveys could collect with Patient-Reported Experience Measures (PREMs; patients descriptions and evaluations about care

they received), and the retrospective reviews of health records might include measures for Patient-Reported Outcomes (PROMs; quality of life, functional status, health service utilization), and consideration of "care moderators" (e.g., age, insurance coverage, health status, etc.) and "care mediators" (e.g., self-efficacy, adherence, trust, etc.), and more. Resulting analyses such as structural equation modeling may also be used to measure the relationship between each of these variables and their latent constructs. The same approaches and evaluations can also be applied to the meso- and macro-levels of care to connect outcomes with degrees of care team coordination, the influence of policy on social and behavioral determinants of health, and more.

The second necessary and feasible stream of research that the findings from Objective 2 of this study enable are the identification, impact, and possible remediation of PCC barriers arising from incompatible care archetypes for the patient and pharmacist. The identification of the '*Partner,*' '*Client,'* and *'Customer'* archetypes is an unexpected finding relative to the broader healthcare PC literature and may speak to the unique corner Pharmacy occupies in healthcare at the intersection of 'professional practice' and 'commercial enterprise.' This placement introduces a significant need to clarify, evaluate, and enforce the boundaries separating true PCC responsive to patient preferences and expectations from opportunistic misuse and abuse of the framework on the micro- (e.g., overprescribing), meso- (e.g., frivolous technology use and investments), and macro-levels (e.g., gaming of payment and reimbursement mechanisms) of care. Some of the answers may be found in the literature related to 'co-production design' and 'value-in-use,' which can inform care delivery design and utilization, accountability incentives, leadership strategy, and more. On the other hand, there still remains significant questions

related to PC especially as it relates to the recent COVID-19 pandemic. For example, does telehealth change the nature of patient-provider relationships and preferences for patient-centered care? What is the relationship between a '*Therapeutic Alliance*' with a pharmacist and procurement of a COVID-19 vaccination? These are all questions that need to be explored further, especially if the changes and effects on care from COVID-19 endure.

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APPENDIX A. PARTICIPANT RECRUITMENT & ENROLLMENT MATERIALS

Pharmacist Study Participant Recruitment Letter

UNIVERSITY OF MINNESOTA

Duluth Campus
College of Pharmacy

Graduate Program in Social,
Administrative & Pharmacy

232 Life Sciences Building
1110 Kirby Drive
Duluth, MN 55812

July 2, 2019

Dear Dr. [SURNAME],

My name is Tony Olson and I'm a pharmacist and student researcher in the Social & Administrative Pharmacy graduate program at the University of Minnesota – College of Pharmacy. I am conducting interviews as part of a research study to understand what matters to patients when receiving care from a pharmacist.

As an experienced and accomplished pharmacist that provides direct patient care consistent with the JCPP Pharmacists Patient Care Process, you are in an ideal position to give us valuable first-hand information about working with patients from your own perspective. As part of this project, you will be asked to complete an interview totaling around 90 minutes, which will be very informal. I will simply be trying to capture your thoughts and perspectives on care that centers around the patient. Your responses to the questions will be kept confidential. Each interview will be assigned a number code and pseudonyms will be used to help ensure that personal identifiers are not revealed during the analysis and write up of findings.

There is no compensation for participating in this study. However, your participation could lead to a better understanding of the definitions, preferences, and experiences in providing patient-centered care. The results of this study may also be used for teaching, publications, or for presentation at scientific meetings.

As part of this study, we will also request you nominate and send a recruitment letter to a small number of patients who might be able to help us better understand this topic from their perspective. You will be able to review this letter and discuss any other questions you may have about this research before deciding whether or not to participate.

If you are interested in participating, please suggest a day and time that suits you for a brief phone call to answer any questions or concerns you maybe have.

Thank you,

Anthony W. Olson

Anthony W. Olson, Pharm.D.
Ph.D. Candidate, Social & Administrative Pharmacy Graduate Program
University of Minnesota – College of Pharmacy
olso2001@umn.edu
952-215-1874

Patient Study Participant Recruitment Letter

UNIVERSITY OF MINNESOTA

Twin Cities Campus
College of Pharmacy

Graduate Program in Social,
Administrative &
Clinical Pharmacy

7-155 Weaver-Densford Hall
308 Harvard Street S.E.
Minneapolis, MN 55455

March 29, 2019

Dear Sir or Madame,

My name is Anthony Olson and I'm a pharmacist and student researcher in the Social & Administrative Pharmacy graduate program at the University of Minnesota – College of Pharmacy. I am conducting interviews as part of a research study to understand what matters to patients when working with a pharmacist.

As a patient who has received care delivered by a pharmacist, you are in an ideal position to give us valuable first-hand information from your own perspective. As part of this project, you will be asked to complete one interview totaling around 90 minutes, which will be very informal. Only I will know which responses to interview questions are yours and your healthcare providers will not be notified whether you participated or not, and will not be told of your responses. Each interview will be assigned a number code and pseudonyms to help ensure that personal identifiers are not revealed during data analysis and write up of findings.

You will receive a $50 gift card for participating in this study after finishing your interview. Your participation could lead to a better understanding of what patients think about "patient-centered care." The results of this study may also be used for teaching, publications, or for presentation at scientific meetings.

If you are willing to participate, please email or call the number below within one week of receiving this letter to learn more information about the research and to schedule the interview 1-3 days before your upcoming appointment with your pharmacist. If you have any questions, please do not hesitate to ask.

Thank you,

_____

Anthony W. Olson, Pharm.D.
Ph.D. Candidate, Social & Administrative Pharmacy Graduate Program
University of Minnesota – College of Pharmacy
www.pharmacy.umn.edu/bio/social-and-administrative-phar/anthony-olson
olso2001@umn.edu
952-215-1874

Study Participant Consent Form

Consent Form

Title of Research Study: Patient Centricity in Pharmacist Practice: Filling the foundation for what counts to patients (Study #00005247)

Investigator Team Contact Information: ***Jon C Schommer***

For questions about research appointments, the research study, research results, or other concerns, call the study team at:

Investigator Name: Jon C Schommer Investigator Departmental Affiliation: Pharmaceutical Care & Health Systems Phone Number: 612-626-9915 Email Address: schom010@umn.edu	Student Investigator Name (if applicable): Anthony W Olson Phone Number: 952-215-1874 Email Address: olso2001@umn.edu

Supported By: This research is supported by the University of Minnesota College of Pharmacy.

Key Information About This Research Study

The following is a short summary to help you decide whether or not to be a part of this research study. More detailed information is listed later on in this form.

What is research?

- The goal of research is to learn new things in order to help people in the future. Investigators learn things by following the same plan with a number of participants, so they do not usually make changes to the plan for individual research participants. You, as an individual, may or may not be helped by volunteering for a research study.

Why am I being invited to take part in this research study?

We are asking you to take part in this research study because you are in an ideal position to give us valuable first-hand information from your own perspective about pharmacist patient care.

What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

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Why is this research being done?

This research is being done to answer the question of: "What are the conceptions, preferences, and experience of pharmacist-delivered care that is patient-centered? There is general agreement among healthcare professionals, policy makers, academics, patients and their families that team-based, patient-centered care is key to successful management of chronic disease but the terms specific meaning in the context of pharmacy is poorly understood. The benefits of a better understanding of this term could help to better measure and improve the quality of pharmacist care delivered to patients.

How long will the research last?

We expect that you will be in this research study for approximately 90 minutes so that an interview can be conducted.

What will I need to do to participate?

You will be asked to participate in one phone call and answer questions related to what matters to patients when receiving care from a pharmacist.

More detailed information about the study procedures can be found under "What happens if I say yes, I want to be in this research?"

Is there any way that being in this study could be bad for me?

No, there are no foreseen risks of research participation. Your recorded responses during the interview will only be seen by a team of three researchers and will remove all information that can be traced back to you when reporting the results.

Will being in this study help me in any way?

Participants of this study may gain a more personal and concrete understanding of what matters to patients in care interactions with a pharmacist. Patients who complete the interview will also be mailed a $50 VISA gift card.

What happens if I do not want to be in this research?

You do not have to participate in this research.

Detailed Information About This Research Study

The following is more detailed information about this study in addition to the information listed above.

How many people will be studied?
We expect about 30 people will be interviewed in this study.

What happens if I say "*Yes, I want to be in this research*"?
If you want to be in this research, please contact the student investigator, Anthony Olson using the following email address (olso2001@umn.edu) or phone number (952-215-1874) and indicate that "Yes, I want to be in this research." The student investigator will schedule and conduct one 90-minute interview that will take place 1-3 days before a patient-pharmacist care appointment. Please find a quiet place where you can conduct this interview without distraction or interruption. After completing the interview, a $50 VISA gift card will be mailed within one business week to a mailing address provided by patient participants. The research will conclude after completion of the interview, but participants will be asked permission to be contacted for any follow-up interviews for the purposes of clarification. Any potential follow-up interviews requested by the student investigator and granted by patient participants will not include an additional incentive.

What happens if I say "Yes", but I change my mind later?
You can leave the research study at any time and no one will be upset by your decision.

Will it cost me anything to participate in this research study?
Taking part in this research study will not lead to any costs to you.

What happens to the information collected for the research?
Efforts will be made to limit the use and disclosure of your personal information, including research study and medical records, to people who have a need to review this information. We cannot promise complete confidentiality. Organizations that may inspect and copy your information include the Institutional Review Board (IRB), the committee that provides ethical and regulatory oversight of research, and other representatives of this institution, including those that have responsibilities for monitoring or ensuring compliance.

We will not ask you about child [or vulnerable adult] abuse, but if you tell us about child [or vulnerable adult] abuse or neglect, we may be required or permitted by law or policy to report to authorities.

Will anyone besides the study team be at my consent meeting?
You may be asked by the study team for your permission for an auditor to observe your consent meeting (or a recording of your consent meeting). Observing the consent meeting is one way that the University of Minnesota makes sure that your rights as a research participant are protected. The auditor is there to observe the consent meeting, which will be carried out by the people on the study team. The auditor will not document any personal (e.g. name, date of birth) or confidential information about you. The auditor will not observe your consent meeting (or a recording of your consent meeting) without your permission ahead of time.

Whom do I contact if I have questions, concerns or feedback about my experience?
This research has been reviewed and approved by an IRB within the Human Research Protections Program (HRPP). To share feedback privately with the HRPP about your research experience, call the Research Participants' Advocate Line at 612-625-1650 or go to https://research.umn.edu/units/hrpp/research-participants/questions-concerns. You are encouraged to contact the HRPP if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Will I have a chance to provide feedback after the study is over?
The HRPP may ask you to complete a survey that asks about your experience as a research participant. You do not have to complete the survey if you do not want to. If you do choose to complete the survey, your responses will be anonymous.

If you are not asked to complete a survey, but you would like to share feedback, please contact the study team or the HRPP. See the "Investigator Contact Information" of this form for study team contact information and "Whom do I contact if I have questions, concerns or feedback about my experience?" of this form for HRPP contact information.

Will I be compensated for my participation?
If you agree to take part in this research study, we will give you a $50 VISA gift card for your time and effort. You may use this card at any store that accepts VISA or you can use a bank machine to remove cash. However, there may be fees drawn against the balance of the card for cash withdrawals (ATM use) and inactivity (no use for 3 months).

Consent Form

Optional Elements:

The following research activities are optional, meaning that you do not have to agree to them in order to participate in the research study. Please indicate your willingness to participate in these optional activities by placing your initials next to each activity.

Yes, I agree	**No, I disagree**	
_____	_____	The investigator may contact me in the future to see whether I am interested in participating in other research studies by Anthony Olson. If yes, provide the following contact information:
		Email Address: _____
		Phone Number: _____

Your signature documents your permission to take part in this research. You will be provided a copy of this signed document.

_____ _____
Signature of Participant Date

_____
Printed Name of Participant

_____ _____
Signature of Person Obtaining Consent Date

_____
Printed Name of Person Obtaining Consent

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APPENDIX B: INTERVIEW GUIDE (PATIENTS & PHARMACISTS)

[Interviewer]: "Thank you for agreeing to do this interview! My name is Tony Olson and I am a student researcher in the Social & Administrative Pharmacy graduate program at the University of Minnesota – College of Pharmacy. Today I wanted to talk with you about the care you receive from your pharmacist. Our goal is to take what we learn from this interview to better understand what matters to you as a patient when working with a pharmacist. The interview should last about 90 minutes or so.

I have a list of questions here in front of me to serve as a guide for our discussion; however, if there are questions that you prefer not to answer, that is okay. Similarly, if you feel that there are things that are important that I do not bring up, please let me know. I may also frequently ask you to describe things in more detail, clarify, or provide examples, to better understand specifically what you mean. To facilitate my note taking, I would like to audio tape our discussion today. Only my research group involved with the project will have access to the actual recordings and only I will know your identity. Shall we begin?

Opening question: Think about your past and upcoming appointment with your [pharmacist/patients]. I want to know: What matters to [you/patients] in care?"

Patient-Centeredness in Definitions and Conceptualizations	
	1) What does 'Patient-Centeredness' mean to you? **2) How do you think understand 'Patient-Centeredness' is understood by your [patients/pharmacists/healthcare organization]?** a. Follow-up: How might your definition of Patient-Centeredness be similar or different than your pharmacist/patient? b. Follow-up: Does Patient-Centeredness in care provided by your pharmacist with you look different than that of another pharmacist, physician, or healthcare provider? **3) What is the particular focus of care when it comes to Patient-Centeredness?** a. the key values or principles that contribute to the pharmacist delivering care that centers around [you/the patient]?

	i. Follow up: Dignity, respect, compassion, mutuality, transparency? ii. Follow up: Personalization, flexibility? iii. Follow up: Coordination? iv. Follow up: Enablement, negotiation, sympathetic presence? **4) What is important characteristics for delivering care that centers around [you/the patient]?** a. Follow ups: Sees you as a person, not disease? Information they should know that isn't necessarily medical (values, work, meaning, goals, concerns)? b. Follow ups: Understands your illness from your perspective? (daily impact on body, mind, spirit, social; cause, needs, goals, etc.) c. Follow ups: Relationship/power dynamics? Interpersonal skills? (partnership, level of input, autonomy, understand vs. motivate)? d. Follow ups: Therapeutic alliance/common ground? (trust, sharing concerns; dignity, passion, respect). Do you and your pharmacist ever have different points of view? How is this handled? e. Follow ups: Doctor as person? Job Commitment? Clarity/congruence of values? Knowing yourself/themselves? f. Follow ups: Realistic Use of Time? g. Follow ups: Health Promotion (activation)? h. Follow ups: Professional competency? (knowledge, skills, attitudes) i. Follow ups: Coordination and integration or care? (appropriate skill mix, shared decision-making system, effective staff relationships, supportive organizational systems, power sharing, potential for innovation and risk taking, physical environment?)

	j. Macro Factors: health and care policy (political, social, technology, etc.); strategic frameworks (plans for humanizing healthcare, identifying needs of patient/workforce, encouraging innovation, etc.); workforce developments (multi-professional approach, reducing clinical variation, practitioner training, etc.), and strategic leadership (cascade approach) **5) What are the key <u>actions or behaviors</u> that contribute to the pharmacist delivering care that centers around [you/the patient]?** **a.** Follow up: Self-management support? **b.** Follow up: Shared decision making? **c.** Follow up: Collaborative care and support planning? **6) How do [your/the patient's] feelings or experiences with medications relate to the pharmacist delivering care that centers around [you/the patient]?** **a.** Follow up: Savior or burden? b. Follow up: Does pharmacist need to understand your beliefs/experience of medications or just know it from a medical perspective?
Patient-Centeredness Preferences	
	7) What [do you/does the patient] 'want' from the pharmacist in terms of <u>qualities</u> when [you are] providing care [for you]? **a.** Respect for preferences? **b.** Information, education, and communication? **c.** Coordination and integration of services among healthcare team? **d.** Emotional support? Physical comfort? **e.** Involvement of family and friends?

	f. Continuity and transition? **g.** Access to care? **8) What specifically [do you/does the patient] 'want' from the pharmacist in terms of <u>actions and skills</u> when providing care for [you/them]?** **a.** decision aids, her portals, checks for understanding/summarizing? **b.** Involvement of family and friends? **c.** (Open slots for pts needing same day appts? Hours beyond 9-5?) **9) What other preferences or expectations do [you/patients] have of the pharmacist when they are providing care for [you/them]?**
Patient-Centeredness Experiences	
	10) How did [the pharmacist/you] deliver care that centered around [you/the patient]? a. Actively solicits/engages patient goals, wishes, preferences, and integrates them into care plan? b. Empathetic responses? Relates genuinely? c. Understanding goes beyond physical and into emotional and spiritual effects? d. Takes time to be with the patient and family? e. Was essential partner capable of helping your own care? **11) What were barriers that stood in the way of [the pharmacist/you] delivering care that centered around [you/the patient]? Where does they come from (your areas of expertise, your organization, U.S. healthcare system, etc.)** **a.** Follow up: attitudes of clinicians, administrator, lack of reimbursement, time etc.?

	12) Did [the pharmacist/you] meet [your/the patient's] expectations for delivering care that centered around [you/the patient]? **13) How can [the pharmacist/you] better deliver care that is centered around [you/the patient]?** **14) How would you define 'Patient-Centered Care'?**
Wrap-up	
	15) In terms of what we have talked about, what things were the most important? **16) Are there any other comments you would like to share that may not have come up in our conversation today?**

Conclusion

[Interviewer] Before we conclude, I would like to collect some demographic and health information from you.

- What gender do you identify as?
- How old are you?
- What race and/or ethnicity do you identify as?
- What do you do for work?
- What is your highest level of formal education?
- Do you currently have health insurance?
- What are your primary means of accessing health care?
- What medical conditions have you been diagnosed with?
- How well or worried do you feel regarding your health?
- How familiar are you with the service and pharmacist you soon receive care from?
- [patient] How did you first learn about this service?/[pharmacist] How are the majority of your patient referred to you?

Thank you for your time to talk to me today. The rest of the research team and I greatly appreciate you sharing your valuable insights!

APPENDIX C: IRB EXEMPTION DETERMINATION

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Human Research Protection Program
Office of the Vice President for Research

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420 Delaware Street S.E.
MMC 820
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EXEMPTION DETERMINATION

January 15, 2019

Jon Schommer

612-626-9915
schom010@umn.edu

Dear Jon Schommer:

On 1/15/2019, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Patient Centricity in Pharmacist Practice: Filling the foundation for what counts to patients
Investigator:	Jon Schommer
IRB ID:	STUDY00005247
Sponsored Funding:	None
Grant ID/Con Number:	None
Internal UMN Funding:	None
Fund Management Outside University:	None
IND, IDE, or HDE:	None
Documents Reviewed with this Submission:	• Consent Form, Category: Consent Form; • INTERVIEW GUIDE 1.docx, Category: Other; • Patient Recruitment Letter, Category: Recruitment Materials; • Pharmacist Recruitment Letter, Category: Recruitment Materials; • HRP-580_AnthonyOlson, Category: IRB Protocol;

The IRB determined that this study meets the criteria for exemption from IRB review. To arrive at this determination, the IRB used "WORKSHEET: Exemption (HRP-312)." If you have any questions about this determination, please review that Worksheet in the HRPP Toolkit Library and contact the IRB office if needed.

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