Work and Relationship Balance in Adulthood: An Exploration of Concurrent Correlates, Predictive Validity, and Developmental Pathways

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Sally I-Chun Kuo

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W. Andrew Collins

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Dedication

For my parents, Hsien-Hsi Kuo and Yih-Shiun Chuang.

Abstract

The present study reflects a growing interest in the intersection of work and relationship in adulthood, with emphasis on balance between these two domains of adult lives. Guided by developmental tasks framework, the present study examined (1) the concurrent correlates of work-relationship balance with predictors from multiple domains including work, relationship, and person variables, (2) predictive validity of the construct on well-being and psychosocial adjustment outcomes, and (3) finally its links to earlier developmental histories, with emphasis on quality of age-salient close relationships and success in earlier developmental tasks. Participants were a subsample ($N = 164$) from a 37-year longitudinal study of risk and adaptation. Work-relationship balance at age 32 was measured using the Balancing Your Life Questionnaire, including role balance, role ease, and role overload scales (Marks & MacDermid, 1996). Results from the concurrent analyses indicated the dynamic nature of the concurrent influence of work, relationship, and person variables, with special emphasis on the roles of social support and emotion regulation, in predicting work-relationship balance. Predictive validity findings are consistent with the literature that work-relationship balance was linked with life satisfaction at age 32, and some tentative associations were observed between work-relationship balance at age 32 and well-being measures and psychosocial adjustment outcomes at age 34. Finally, developmental findings suggest that social capital and resources, derived from close relationships across development, are cumulative across development and have the potential significance for positive work-relationship balance in adulthood. Implications of the present findings and for future research are discussed.

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In most western industrialized societies, young adults are expected to establish themselves in multiple roles, which often include paid work, romantic or marital relationship, as well as rearing children and parenting. Work and family, therefore, represent two of the most central components of adult life and personally significant roles and identity (Reitzes & Mutran, 2002). These two realms also often serve as key indicators of adaptive functioning in the evaluation of individuals' psychosocial and physiological well-being (Diener & Seligman, 2004; McCormick, Kuo, & Masten, 2011; Ryff, Singer, & Seltzer, 2002). In fact, these two classic facets of human motivation— "Lieben und arbeiten" (to love and to work)—was reportedly Sigmund Freud's answer to the complex question, "what a person should be able to do well" (Erikson, 1950/1963; Freud, 1954). Each domain has, unsurprisingly, provided a unique lens to understand important aspects of human behaviors and emotions, close relationships, and functioning. Although these core domains have been studied extensively with rich theoretical advancement and empirical literature, such investigations of work and relationship/ family lives have historically been kept as two separate, independent lines of research.

More recently, however, there has been a growing interest in the intersection of work and relationship (family), with emphasis on the work-family issues, linkages, conflicts, and balance between the two spheres in life (Eby, Maher, & Butts, 2010; Halpern, 2005; Marks & MacDermid, 1996). This shift reflects the fundamental changes in the demographic trends and in the structure of work and family roles in America today.

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For example, there has been an increase in the number of women combining domestic responsibilities with paid work outside of the home, more dual-earner families, single parents, and families with demands of both child and elder care (Mishel, Bernstein, & Shierholz, 2009). Furthermore, this interest derives from the assumption that multiple roles (e.g., the roles of worker, spouse, and parent) may strain time, energy and resources (Barnett, 1998) and may generate role conflicts, which are major stressors impacting role-related outcomes and the health and well-being of individuals (Frone, 2003; Goode, 1960). Therefore, societies, as well as organizations, families, and individuals, have a stake in the work-relationship balance success of their adults because of economic and social values placed on the competence achieved in both work and relationship domains simultaneously in adulthood (Halpern, 2005). Guided by a developmental tasks framework on work-relationship balance, the present study examines a series of hypotheses addressing its associations with relevant concurrent and future well-being, work, and relationship outcomes, and its links to earlier developmental histories.

Definitional and Conceptual Issues

Before one can discuss the intersection of work and family—the work-family balance—and work-family conflict and facilitation, it is necessary to define work and family domains separately first. Work refers to instrumental activities that provide means to support life (Piotrkowski, Rapoport, & Rapoport, 1987), and for many, this would mean to establish a membership in an organization that compensates workers for their contributions (i.e., paid work; Burke & Greenglass, 1987; Eby et al., 2010).

Family refers to individuals being related through biological ties, marriage, social custom, or adoption (Piotrkowski et al., 1987; Burke & Greenglass, 1987). Similar to work, family represents membership in a social structure that a person contributes. However, unlike work, the contribution to the family is not for earning good and services, but, rather, for the purpose of maintaining the family and enhancing its well-being (Edwards & Rothbard, 2000). These definitions of work and family are intentionally broad and liberal, encompassing a diverse array of work arrangements and family structures.

Work-Relationship Balance. Broadly speaking, the interaction of work and family is defined by the experiences in the work domain impacting experiences in the family domain and vice versa. The notion of work-family balance has generated a wide spread academic and applied interest. Work-family balance is also a term that has been widely cited in the popular press (Greenhaus, Collins, & Shaw, 2003). Despite the overwhelming interest in the concept of "work-family balance," most writers and scholars have treated the term as if its meaning is self-explanatory. In fact, the construct has not been explicitly or consistently defined within and across disciplines (Grzywacz & Carlson, 2007). For example, at times it is used as a noun to encourage individuals to achieve balance, but other times as a verb referring to the actions of balancing work and family demands and roles, or as an adjective to describe a "balanced" life (e.g., Marks & MacDermid, 1996; Clark, 2000; Voydanoff, 2005; Kofodimos, 1993). The meaning of the work-family construct itself has not undergone extensive examination, and a comprehensive detailed review of the different meanings is beyond the scope of the

current discussion. Nonetheless, researchers have generally view the concept of work-relationship (work-family) balance as the *absence* of work-family conflict, interference, negative spillovers, and role stress and overload (Frone, 2003). It is this broader, conservative, and traditional definition of work-family balance (ease with multiple roles and role balance) that is mainly discussed here.

Work-Relationship Conflict. The negative aspect of the work-family interaction refers to the interference from work to relationship/ family, and the interference from relationship/ family to work. It is also often referred to as work-family conflict or negative work-family spillover in the literature (Small & Riley, 1990). The most widely cited definition of work-family conflict states that it is "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role" (Greenhaus & Beutell, 1985, p. 77). As implied by this definition, work-family conflict has a bidirectional nature, suggesting work can interfere with family, *and* family can interfere with work. Greenhaus and Beutell (1985) distinguished three types of work-family conflict: (a) time-based (time spent in one role reduces the time spent in another role), (b) strain-based (role generated strain or fatigue affects performance in another role), and (c) behavior-based conflict (specific behavior in one role are incompatible with behavior expectations within another). For example, interference from work to family may occur when work demands impede the ability to complete family responsibilities, such as making it difficult for a spouse or parent with long work hours to arrive home in time to prepare meals for the

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family. Similarly, family responsibilities may hinder performance at work, such as a child's illness requiring a parent to be absent from work in order to stay home with the sick child.

Work-Relationship Facilitation. Recent findings have also suggested that in addition to the work-family conflict dimension of the work-family balance, there may be another different dimension of work-family balance—namely, the positive aspects of the interactions between the two (Frone, 2003; Grzywacz & Marks, 2000). The positive aspect of the work-family interaction describes the extent to which participation in work (family) enriches/ enhances functioning in family (work) domain by providing individuals with, for example, developmental, experience, skill, capital, affective, and emotional gains (e.g., Greenhaus & Powell, 2006; Grzywacz & Marks, 2000; Crouter, 1984; Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005; Hanson, Hammer, & Colton, 2006). For example, positive affect experienced in work role may increase self-efficacy, motivation, and positive interpersonal interactions and have higher quality relationships in the family domain (Edwards & Rothbard, 2000). Because of the scarcity of research on positive spillovers between work and family and with the conceptualization in its infancy stage (Witt & Carlson, 2006; Frone, 2003; Gareis, Barnett, Ertel, & Berkman, 2009), it should be noted that the term work-relationship balance (work-family balance; i.e., lack of work-family conflict) is used throughout this paper from here on as it is more comprehensive than only focuses on either the negative or positive dimension of the work-family interface.

Theoretical Perspectives. Early roots of understanding the links between work and relationship/ family life lie in role theory. Role theorists propose that having multiple roles to fulfill (e.g., worker, spouse, parent) would be stressful and lead to conflict and overload (Goode, 1960). More specifically, the traditional role theory postulates that the expectations associated with the multiple roles would inevitably conflict in one way or another and, thus, result in interrole conflict (Kahn, Wolf, Quinn, Snoek, & Rosenthal, 1964). In fact, the most widely used definition of work-family conflict, as mentioned above in the earlier section, was developed based on role theory (Greenhaus & Beutell, 1985).

It is important to note, however, that some contemporary role theorists, drawing on Mead's nonhierarchical notion of multiple selves (1964), argue that individuals should hold equally positive commitment to their different roles (Marks & MacDermid, 1996). When individuals are fully engaged in *every* role in one's total role system, interrole conflict, as suggested by Goode and other traditional role theorists, would then not be expected. Multiple role theory offers a unique perspective to understand the meaning of "work-family balance" as being not merely the absence of work-family conflict.

In addition to role theory, current thinking on the development of work-relationship interface research has also been guided by ecological system framework, with emphasis on integration and context (Bronfenbrenner, 1979, 1986). This perspective is closely linked to the concept of embedded systems. It suggests that the work-family interface is a joint function of process, person, and context. That is, it places a strong emphasis on the importance of the ecological context in which a person resides.

For understanding the work-family interface, the most relevant microsystems are the workplace and the home (the different roles that a person can hold), and at the next mesosystem level, it includes the linkages between the two microsystems, such as the ones between work and family. Then the next level is the exosystem, which is the same as mesosystem but does not contain the individual. One example of an exosystem would be the relations between one's work life and his or her *spouse's* home life experiences. Finally, all three types of systems combined create a unique pattern within each culture, referring to as the macrosystem.

For example, studies have largely examined the effects of a person's work life on his or her home life or vice versa, and how these occur. However, increasingly scholars have used samples of couples and families to understand processes at the exosystem level, such as one's work experiences on the other partner's home experiences (e.g., Chan & Margolin, 1994; Schulz, Cowan, Cowan, & Brennan, 2004; Rogers & May, 2003; Westman & Etzion, 1995) or one's work experiences on his or her children's experiences at home (e.g., Crouter & Bumpus, 2001; Crouter, Bumpus, Maguire & McHale, 1999; Repetti, 1994; Costigan, Cox, & Cauce, 2003).

Prior Studies of Predictors of Work-Relationship Balance

The various predictors of work-family balance that have been examined can generally be classified into three categories: (a) work domain, (b) relationship (family) domain, and (c) person variables (Eby, Casper, Lockwood, Bordezux, & Brinley, 2005). Work domain predictors include factors such as work involvement, work distress or burnout, as well as social support at work. Relationship domain variables include, for

example, family involvement, distress, and support. Person variables include, for example, personality differences.

Work Domain Predictors. According to the resource drain model (Eckenrode & Gore, 1990; Frone, 2003; Small & Riley, 1990), as one spends more time in the work domain (e.g., number of hours worked), it would reduce the available time for use in the family domain. Empirical evidence has consistently provided support for the notion that the amount of time spent working is a predictor of work-family conflict (Byron, 2005). More specifically, there is a positive relationship between the amount of hours devoted to work and the level of work-family conflict, with higher weekly hours working is linked with higher levels of work-family conflict (e.g., Frone, Yardley, Markel, 1997; Gutek, Searle, & Klepa, 1991; Grzywacz & Marks, 2000; Stevens, Minnotte, Mannon, & Kiger, 2007, men only).

A number of work related stressors have also been examined as a predictor of work-family conflicts. First, studies have repeatedly shown that job distress predicts positively to work-family conflict (e.g., Bernas & Major, 2000; Frone et al., 1997). For example, in a study of women who were employed a minimum 30 hours per week outside of the home and were either married, living with a partner, or having a child under the age of 18 living at home, job stress was linked positively with work-family conflict (Bernas & Major, 2000). While it is expected that a great deal of overlap exists between constructs of work stress and work-family conflict, it is, however, important to note that job stress measured in this study focused on *experienced* job stress (e.g., "I work under a great deal of tension" and "While at work, I feel there is too much pressure to get things

done.") rather than stressful job characteristics. This provides some support for the argument that job distress may lead to cognitive preoccupation with the source of the stressor (i.e., job) or have reduced available time or energy to fulfill the expectations associated with the family role (Frone et al., 1997).

Additionally, social support, a form of social capital resources, has often been identified as an important resource or coping mechanism that can buffer the negative effects of work stressors (House, 1981). Amount of social support from coworkers or supervisors may be directly linked with a lower level of work-family conflict or may buffer the effects of other work-related stressors on work-family conflict. Lack of social support at work has been linked with higher levels of work-family conflict (Ford, Heinen, & Langkamer, 2007; e.g., Fox & Dwyer, 1999; Greenhaus, Bedeian, & Mossholder, 1987; Karatepe, 2010).

In a sample of registered nurses (typically characterized as having long work hours and stressful work environment), felt supervisor support (e.g., "We talk about problems in working with doctors" and "We discuss things that are happening our personal lives") was linked with the level of work-family conflict (Fox & Dwyer, 1999). Higher level of felt support from supervisors ameliorated work-family conflicts for all nurses. Furthermore, there was an interaction between felt supervisor support and time spent on paid work in predicting work-family conflict. More specifically, the association between social support at work and the level of work-family conflict was especially pronounced for those nurses who had longer work hours. Thus, social support at work

seems to play an integral role (i.e., predictor and moderator) in the context of work-family interferences.

However, in a study of examining whether social support at work serves as an antecedent to perceived job stressors, an intervening, a moderating, or an independent predictor to work-family conflict using a sample of state government employees, interesting findings were emerged. Specifically, results of fit indices from models comparison indicate that the best fitting and the most parsimonious was the model illustrating work-related social support was a predictor to perceived work stressors, which then, indirectly, decreased the level of work-family conflict (Carlson & Perrewe, 1999). This suggests that having social support in the work environment may help to avoid perceiving work as stressful, which, in turn, leads to a lower level of work-family conflict. That is, it implies that strong social support at work may reduce the perception of work related stressors. However, once the work role is perceived as a stressor, social support may only play a little role in buffering the effect of work stressors on work-family conflict. This further confirms the important need to consider the various roles that social support (from coworkers, supervisors) at work may function (e.g., predictor of perceived work stressors or buffering effect between stressors and work-family conflict) in the context of work-family interface and interferences.

Predictors from the work domain are unsurprisingly to be important factors of work-family conflicts, especially in the direction of work-to-family interferences. These work related variables not only predict the level of work-family conflict as main effects, findings also suggest potential buffering roles they may serve. Furthermore, some of

these factors may be antecedents to other work-related stressors, which in turns are linked to work-family conflict. Also, work-related stressors may be predictors of work-family conflicts, but also as outcomes of work-family conflict, suggesting a reciprocal nature of associations. Of course, although not reviewed in the current section, characteristics of job, such as job type, flexible hours, traveling demands, are all potential important predictors of work-family conflicts (e.g., Judge, Boudreau, & Bretz, 1994; see Byron, 2005 for a review).

From a systems perspective (Bronfenbrenner, 1979, 1986), while these work-related variables are particularly salient in the work context, it is also likely that these variables will interact with individual characteristic and family related variables (e.g., Repetti, 1998, marital relationship buffering the negative effects of work stressors), resulting in a more dynamic and integrated view of understanding the interface between work and family and work-family conflict.

Relationship Domain Predictors. Parallel to the earlier discussion on work involvement, according to the resource drain model, spending more time in the family domain leads to a reduced amount of time available for the work life. As a result, family involvement is expected to a predictor of work-family conflict, particularly in the direction of family-to-work interferences (e.g., Frone et al., 1997; Gutek et al., 1991; Baltes & Heydens-Gahir, 2003). Indeed, in a meta-analysis, more hours spent on family, housework, childcare or other non-work related activities were found to be associated with higher levels of work-family conflict experienced (Byron, 2005). Given the bi-directional nature of work-family conflict (W→F and F→W), it was expected that these

family involvement variables would predict more strongly to family-to-work inference than to work-to-family interferences (Frone, 2003). Results show that although these variables predicted higher levels of work-family conflict in the direction of family to work life, the differences between the levels of family-to-work conflict and work-to-family conflict were not statistically significant.

Psychological family involvement has also been examined as a predictor for work-family conflict (e.g., Frone, Russell, & Cooper, 1992; Adams et al., 1996). For example, Adams and colleagues (1996) found that family involvement, assessed using a parallel measure to Kanungo's (1982) work involvement scale (Frone et al., 1992), was associated with family-work interferences. Similar to the psychological work involvement findings, higher level of psychological family involvement was also related to family interfering with work. These findings are consistent with role theory perspective, suggesting that the more individuals are involved in a particular role (e.g., family), the more they will perceive interference in another role (e.g., work) from the participation in the primary role (Pleck, 1977).

Studies have also shown that experiencing a higher level of family stressors is a strong predictor of family-work conflict (e.g., Frone et al., 1992; Baltes & Heydens-Gahir, 2003). Family stressors here are usually assessed as a combination of both parental stressors (parental workload and children's misconduct behavior) and marital stressors (lack of spousal support and marital tension). While this global level pattern of results is helpful and does in fact support the notion that general family stressors do indeed are positively related to the frequency of family-work conflict, it lacks specificity.

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That is, it would be important to disentangle general family stressors into specific aspects (e.g., marital tension, parent-child conflict), and examine aspects of family stressor in predicting family-work conflict.

Several studies have attempted to do just so (e.g., Aryee, Fields, & Luk, 1999; Grzywacz & Marks, 2000). For example, Grzywacz and Marks (2000), using a sample of employed participants from the National Survey of Midlife Development in the United States, found that different aspects of family variables were associated with family-work conflict. Specifically, having a low level of spousal support was associated with more family-work conflict, even controlling for the level of spousal disagreement. Also, a low level of spousal criticism was linked with less family-work conflict. Interestingly, for both men and women, less spousal disagreement was associated with work-to-family interference, suggesting that family variables can also influence work-to-family interferences, not just vice versa.

Moreover, low levels of spousal emotional support were associated with more work-family conflict; this relationship was only observed for men (Grzywacz & Marks, 2000). Taken together, these results suggest that both family stressors and positive family factors influence interferences in work and family life in both directions, family-work and work-family conflicts. Although only at the trend level, the observed gender differences point to an important potential moderating role that gender may play (e.g., Grzywacz & Marks, 2000; Frone et al., 1992; Gutek et al., 1991).

Similar findings were also observed that lack of family cohesiveness—the degree to which family members are helpful and support to each other—was associated with

more work-family conflict (Stevens et al., 2007). Even though a significant amount of literature on work-family interface has focused on couple relationships (marital relationship), this suggests that relationships beyond marital dyads are also important influential factors in predicting work-family conflict, and also the need to differentiate among types of social support (e.g., Bernas & Major, 2000; Frone et al., 1997).

Another important aspect of family stress revolves around the role of being a parent. In fact, simply whether or not having children (a dichotomous variable of yes or no) has been a consistent predictor of work-family conflict (e.g., Byron, 2005; Grzywacz & Marks, 2000). For example, for both men and women, having a child (of any age) in contrast to having no children is associated with higher levels of family-work conflict (Grzywacz & Marks, 2000). However, previous studies have also indicated that age of the oldest child would be an important predictor of work-family experiences (Voydanoff, 1988). The idea here is that having children of younger ages, for example, at home would be associated higher levels of family demands and parenting responsibilities and, thus, requiring more time of the parents.

Instead of using a dichotomous parental status (i.e., a parent or not) variable, results from various studies have shown that factors that would likely increase parental responsibilities are also associated with family-work conflict. For example, study by Behson (2002) showed that parental responsibilities, by weighting the number of children, their ages, and the living arrangement in account, predicted positively to family-work conflict. Higher parental role responsibilities was linked with more family-work conflict. In a Finnish sample, for men, the number of children living at home predicted

work-family conflicts (Kinnunen & Mauno, 1998). Higher number of children living at home was associated with more work-family conflict. For women, same effect was observed, but the association did not hold after controlling for work-related predictors (e.g., job insecurity). It is important, however, to note that in that sample, men largely had blue-collar jobs while women were mostly white-collar workers. Thus, the observed gender differences in the relation between number of children living at home and work-family conflict may be accounted if different studies used samples with men and women having similar job type/ level.

Person Variable Predictors. Although a long history of exploring individual role characteristics as predictors of work-family conflict (see Frone, 2003, for review), studies have only recently begun to pay increasing attention to personality dispositional factors in predicting work-family balance. Personality factors such as neuroticism and negative affectivity have received the most attention, mainly perceived as a potential negative dispositional factor to be linked to an increasing likelihood of experiencing higher levels of work-family conflict.

As a result of avoiding problems and having less effective coping strategies, for example, individuals high on neuroticism may experience more work and family stress and, subsequently, a higher levels of work-family conflict (Watson, 2000; Stoeva, Chiu, & Greenhaus, 2002). Indeed, studies have consistently found that trait negative affectivity is positively correlated with both work-family conflict and family-work conflict (e.g., Stoeva et al, 2002; Bruck & Allen, 2003). Similarly, studies have reported that higher neuroticism be associated with higher levels of work-family and family-work

conflicts (e.g., Grzywacz & Marks, 2000; Blanch & Aluja, 2009; Wayne, Musisca, & Fleeson, 2004). In addition, results from a recent meta-analytic review on the big five personality factors and negative work-family spillovers provide strong support for a positive association between neuroticism and work-family conflicts (Michel, Clark, & Jaramillo, 2011). A few studies have also shown that as the level of neuroticisms increases, the level of work-family facilitation (i.e., positive spillover) also decreases (e.g., Wayne et al., 2004). However, this negative association was not supported by findings from the recent meta analysis (Michel et al., 2011).

In contrast to neuroticism, extraversion and positive affectivity are often perceived as "resources" that individuals may have to actively cope with stressors at work and family and, hence, reduce the likelihood of experiencing work-family conflict (Frone, 2003). Findings showing the association between extraversion and work-family conflict have been mixed. Several studies have demonstrated that a higher level of extraversion is linked with a lower level of work-family conflict (e.g., Kinnunen, Vermulst, Gerris, & Makikangas, 2003), while some have found no significant correlation between the two (e.g., Bruck & Allen, 2003). Meta analysis results reveal only a small negative relationship between extraversion and negative spillovers. Interestingly, however, extraversion was a particularly strong predictor of positive spillovers (i.e., work-family facilitation; Michel et al., 2011). In addition to extraversion, conscientiousness is considered as another predictor of work-family conflict. Conscientiousness has been linked with job performance (across a wide range of job types), and it seems likely that someone who is more conscientiousness would be better

at managing his or her time, energy, and resources for his or her roles in the work and family domain and, thus, minimizes the level of experienced work-family conflict. Empirical evidence has provided mixed support (e.g., Bruck & Allen, 2003). Bruck and Allen (2003) found that conscientiousness was not related to work-to-family interferences, but it was related to family-to-work conflict, such that a higher level of conscientiousness was associated with a lower level of family interferences with work.

Taken together, work and relationship domain predictors and person variables are all important factors of understanding work-relationship interface. While studies of main effects of various factors in predicting work-family conflict are important and informative, it is necessary to also consider mediation (direct and indirect) and moderation effects. Interaction effects of both within domain (e.g., spousal social support × parental distress) and across domains (e.g., job involvement × personality), based on theories, should be explored more systematically in order to advance our understanding of the complex intersection between work and relationship life.

Prior Studies of Outcomes of Work-Relationship Balance

Work-family experiences and work-family balance can also be viewed as risk factors (lack of positive work-relationship balance) and, thus, are also influential determinants (predictive validity) of one's overall functioning, including aspects of, for example, physiological and mental health, as well as psychosocial well-being.

Physical and Mental Health. Past research has shown health consequences of work-family conflicts. A number of studies have linked work-family conflict to self-reported poorer physical health (e.g., Frone et al., 1996; Grzywacz, 2000; Marks, 1998;

Shockley & Allen, 2013). Drawing data from the National Survey of Midlife

Development in the United States, a large survey study, findings show that higher level of

work-family conflict was associated with poorer physiological outcome (Grzywacz,

2000). This association also did not differ between men and women. With respect to

self-reported physical health status (ranging from poor to very good/ excellent), for every

unit increase in the level of work-family conflict, the odds of reporting physical health

status as very good or excellent decreased by 19%. Furthermore, each unit increase in

the level of work-family conflict was linked with a 57% increase in the odds of reporting

multiple (greater than 4) chronic conditions (e.g., asthma, high blood pressure, and

sleeping problems) as well as a 32% increase in the odds of being obese (derived from

self-reported weight and height).

Although findings from studies with cross-sectional design and self-report

measures provided valuable evidence documenting the relation of work-family conflict to

physiological health, findings from longitudinal studies would provide a more compelling

support. In a four-year longitudinal study of employed parents, family-work conflict at

baseline assessment was related to poorer self-reported physical health 4 years later, and

to the incidence (i.e., development of new cases) of hypertension (onset of hypertension).

Also, work-family conflict at baseline assessment was associated with higher levels of

heavy alcohol use at follow-up (Frone et al., 1997).

Negative work-relationship balance (i.e., work-relationship conflicts) has also

been shown to have negative influences on one's substance use and symptoms of

psychopathology. Evidence of these effects have been found for problem drinking (e.g.,

Grzywacz & Bass, 2003; Frone et al., 1996; Frone, Barnes, & Farrell, 1994), cigarette use (indirect effect via negative affect; Frone et al., 1994), depression (e.g., Frone et al., 1992; Frone et al., 1997; Kinnunen et al., 2003), psychosomatic symptoms (Burke & Greenglass, 1999), and general mental health (Grzywacz, 2000).

Moreover, at clinical level of diagnoses, findings by Frone's study (2000), using the National Comorbidity Survey, show a positive association between work-family conflicts and clinically significantly diagnoses of mood, anxiety, and substance dependence disorders. Also, interesting results emerged by comparing those who experienced work-family conflict often versus who never reported any work-family conflict. Specifically, individuals who reported experiencing work-family conflict often were 3.13 times more likely to be diagnosed with mood disorder, 2.46 times more likely to have anxiety disorder, and 1.99 times more likely to have substance dependency disorder than individuals who reported never experiencing any work-family conflict.

Psychosocial Well-Being. Experiences in work-family conflicts have also been consistently linked with work and family life, as well as general psychological well-being (Clark, 2000; Clarke, Koch, & Hill, 2004; Kossek & Ozeki, 1998; Marks & MacDermid, 1996; Mesmer-Magnus & Viswesvaran, 2005). In general, studies have found that work-family conflict is negatively correlated with life satisfaction (e.g., Adams et al., 1996; Aryee et al., 1999).

With respect to the work life, many studies have found that as work-family conflict increases, satisfaction with work decreases (e.g., Adams et al., 1996; Ayree et al., 1999; Burke & Greenglass, 1999; Carlson & Kacmar, 2000; Frone et al., 1994; also

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further supported by meta-analytic results, see Ford et al., 2007). Also, higher levels of family-work conflict have been linked with higher frequency of negative emotional reactions to daily work experiences (e.g., Frone et al., 1997) and more feelings of emotionally drain, burnout, or stressed (e.g., Anderson, Coffey, & Byerly, 2002).

Furthermore, family-work conflict also appears to impact the actual job performance (Ayree, Srinivas, & Tan, 2005). For examples, family-work conflict predicts higher frequency of absenteeism (e.g., Anderson et al., 2002), higher workload (e.g., Frone et al., 1997), and lower levels of job performance (e.g., Frone et al., 1997). Additionally, with respect of job withdrawal intentions, Greenhaus and colleagues have shown that work-family conflicts predicted accountants' withdrawal intentions (Greenhaus et al., 2001). Yet, this relation was moderated by one's level of career involvement—specifically, those experienced higher levels of work-family conflict and had a lower career involvement were more likely to have lower levels of organizational commitment.

Work-family conflicts, undoubtedly, also impact one's family life. Studies have shown that work-family conflict is linked with lower levels of family satisfaction (e.g., Aryee et al., 1999; Carlson & Perrewe, 1999). Also, as work-family conflict increases, performance in the family role also decreases (e.g., Frone et al., 1997). In terms of social support receiving, individuals who experienced higher levels of work-family conflict also received less instrumental and emotional support from family members (e.g., Adams et al., 1996). This is particularly interesting given that, on the one hand while family social support may predict the levels of work-family interferences, family members of workers,

on the other hand, may also find it difficult to provide support to workers when their demands in the work role are interfering with the demands of worker's family life. Finally, as family-work conflict increases, martial satisfaction also decreases (e.g., Kinnunen et al., 2006).

Relatively less attention has been paid on crossover effects as outcome of work-family conflict (e.g., Hammer, Allen, & Grigsby, 1997; Hammer et al., 2005). Crossover effect refers to the phenomenon that when stressors experienced by one person affect another person's. For example, in an earlier study, Hammer and colleagues (1997) found that one's own level of work-family conflict affected the other *partner*'s work-family conflict level. In a more recent study (Hammer et al., 2005), one's level of work-family conflicts was positively related to his or her *partner*'s report of depressive symptoms. This suggests that one's affects and experiences not only may spillover across domains within oneself (e.g., one's work life to one's family life), but may also crossover to the experiences of others in the same or different domains (e.g., one's work life to another co-worker's, or one's work life to a child's in the family).

Work-Relationship Balance As An Aspect of Adult Competence

Despite the growing interest, most research in this field (work-relationship balance) has focused on how characteristics of *adult* work and relationship functioning are associated with *adults' concurrent* success in maintaining a balance between the work and relationship domains (see Eby et al., 2010 for review). This line of research does not address pathways to the capacity to balance key domains in adult lives. The nature of cross-sectional data has also hindered the understanding of developmental differences in

how well individuals balance among important aspects of competence in adulthood as well as the predictive validity of this novel construct (work-relationship balance).

To date, the developmental literature has had relatively little to say about how one's past may constrain/ promote his or her capacity to balance between relationship and work functioning in adulthood. This lack of attention is surprising in light of a growing body of literature on study of development and individual differences (i.e., earlier indicators) in various key aspects of adult competence, with focuses on the pertinent outcomes related to balance such as adult relationship functioning (the capacity to form a stable, non-conflictual, supportive relationship with a romantic partner; e.g., Overbeek, Stattin, Vermulst, Ha, & Engels, 2007; Simpson, Collins, Tran, & Haydon, 2007) and work competence (the capacity to function successfully and responsibly in the workplace and to hold jobs; e.g., Collins & van Dulmen, 2006b; Dubow, Huesman, Boxer, Pulkkinen, & Kokko, 2006; Masten, Desjardins, McCormick, Kuo, & Long, 2010). While work-relationship balance has not been one of the traditional outcome domains discussed with respect to adult competence (traditional outcomes, for instance, include relationship competence, work success, effective parenting, and civic engagement), the capacity to manage and balance among adult roles is arguably another critical aspect of adult competence that should be fully examined and may have shared pathways/ antecedents with respect to relationship and work competencies in adulthood.

Competence and Developmental Tasks. Competence can be defined developmentally as the successful negotiation of salient developmental tasks/ issues for a given age period and cultural/ social context (Masten, Burt, & Coatsworth, 2006; Masten

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& Coatsworth, 1998). Developmental tasks are benchmark expectations that are used to judge whether individuals are doing well in life at a given life period. Successful achievement of these tasks represents psychosocial milestones of development, and it often forecasts success in future salient developmental issues. Unsuccessful achievement, in contrast, often forecasts that later failure in the social/ cultural context is likely, as it signals risks for potential difficulties in achieving salient life tasks in the future (Havighurst, 1972; Masten et al., 2006; McCormick et al., 2011). Competence also manifests in different ways across development. The key to assessing competence across development is to focus on issues central to each developmental period (Waters & Sroufe, 1983). From an organizational-developmental perspective and the developmental tasks framework, performance on these key issues not only serves as indicators of successful concurrent adaptation, but also represents predictive validity for the quality of adaptation in regard to the future salient developmental issues (McCormick et al., 2011; Sroufe, 1979; Waters & Sroufe, 1983).

Developmental theory has long suggested that competence has roots in childhood (i.e., earlier in development), and evidence from longitudinal findings that early experiences have meaningful contributions to later engagement and achievement in various developmental tasks is growing (e.g., Collins & van Dulmen, 2006ab; Englund, Kuo, Puig, & Collins, 2011; Roisman, Masten, Coatsworth, & Tellegen, 2004). This underscores a core tenet that development is cumulative—the skills and experiences gained in one period of development become the tools for future success (the notion of competence begets competence). However, although a good foundation in early years is

important, later experiences also play a role in helping navigate life tasks effectively as well as successful adaptation at subsequent ages (Carlson, Sroufe, & Egeland, 2004). In other words, development at each stage builds on prior experiences *and* carries forward to shape future experiences at later periods (Carlson et al., 2004; Sroufe, 1979; Sroufe & Fleeson, 1986).

Developmental tasks also wax and wane in significance over the course of development (Masten, 2006; Roisman et al., 2004). Academic achievement, for example, is salient during earlier periods in development (e.g., normative school ages) and often wanes in significance in adulthood. Conversely, work competence typically becomes more salient during the transition to adulthood. Success in tasks in one developmental period probabilistically forecasts later success not only in the same domains (e.g., academic achievement to later academic achievement) but also in later emerging tasks (e.g., academic achievement to later work competence or peer competence to later romantic relationship functioning; a form of heterotypic continuity). Different common salient tasks have been recognized for each age period. Age-salient tasks for young adults, for example, often include having committed romantic relationships or marriage, establishing and maintaining work, behaving appropriately at work, providing care for dependent children, achieving financial independence, and maintaining a household (McCormick et al., 2011; Sroufe, Egeland, Carlson, & Collins, 2005).

It is important to note that a variety of tasks are often identified for a broad period of development, such as the examples listed above for young adults, to judge whether development is proceeding well (i.e. assessing competence). While there is no question

that adult competence is multidimensional in nature, the present study explores only one aspect of adult competence—namely the work-relationship balance. Although, to our best knowledge, there is no prior developmental literature on work-relationship balance, one reasonable direction is to draw on previous work on developmental perspective on adult romantic relationships and adult work success. Given the capacity to balance between work and relationship domains most likely involves success and effectiveness in both of these domains, it seems logical, as a first step, to speculate that development of work-relationship balance may share similar pathways with the development of relationship and work functioning in adulthood.

Developmental Predictors of Adult Relationship Functioning. Developmental perspective on romantic relationships has emphasized the cumulative nature of experiences in age-salient close relationships, beginning in early parent-child relationship in infancy and across the development (Collins, Hennighausen, Schmit, & Sroufe, 1997; Collins & Sroufe, 1999; Collins & van Dulmen, 2006a; e.g., Englund et al., 2011; Haydon, Collins, Salvatore, & Roisman, 2012; Simpson et al., 2007; Sroufe et al., 2005). This perspective asserts that the quality of early care received in the parent-child relationship sets the stage for individuals' expectations about the availability and willingness of significant others to provide support, especially in times of distress. These expectations also transact with experiences in age-salient close relationships (e.g., parent-child relationship, peer relation, friendship, and romantic relationship) across development, such that the expectations both affect and are affected by these experiences (Carlson et al., 2004; Sroufe et al., 2005).

These age-salient relationships can also be conceptualized as one's social capital (defined as the ability to utilize resources in the social environment to effectiveness in adult roles; Englund et al., 2011). The availability of these social resources and one's willingness to utilize has been consistently linked with relationship history across development (e.g., Englund et al., 2011; Sroufe & Waters, 1977; Sroufe et al., 2005). Here, social capital refers not only to the group membership (e.g., having a friend, having a partner), but also to the *quality* of age-salient relationships across development. A core hypothesis of this perspective is that age-salient relationship is associated with effectiveness in adult relationship role.

Developmental Predictors of Adult Work Success. The other important element of the work-relationship balance is the work functioning in adulthood. While only few studies have examined developmental pathways to adult work competence, two important—replicated—pathways to effectiveness in adult work role have been identified (e.g., Collins & van Dulmen, 2006b; Hyson, 2002; Masten et al., 2010). First, there is the association between academic achievement and later work competence (Caspi, Wright, Moffitt, & Silva, 1998; Dubow et al., 2006; Kokko & Pulkkinen, 2000; Masten et al., 2010). This is perhaps unsurprising given many jobs have academic requirements and require specific skills gained in different academic and professional programs. In addition, presumably skills and capacities required for academic/ school success (e.g., cognitive, social, language skills) are also important aspects for determining success in the work place.

Second, several longitudinal studies have shown that peer social competence forecasts adult success in the work role. For example, better peer competence in early and middle childhood predicted later work competence in early adulthood (Collins & van Dulmen, 2006b; Masten et al., 2010). Furthermore, Collins and van Dulmen (2006b) found that peer competence appeared to partially mediate the effect of early caregiving on work competence in early adulthood. Also peer reputation in elementary school predicted later work competence, controlling for academic achievement (Gest, Sesma, Masten, & Tellegen, 2006). Children viewed by peers as prosocial had better adaptation in the work place later; in contrast, peer exclusion was linked with poorer outcomes in the domain of work functioning.

The Present Study

Using prospective longitudinal data from a 34-year study, a developmental tasks framework on work-relationship balance was adopted, examining hypotheses concerning three broad goals: (1) its associations with relevant concurrent and (2) future relationship, work, and well-being outcomes, as well as (3) its links to earlier developmental histories. The purpose of the current study was to replicate cross-sectional findings in the literature in order to establish concurrent (measured at age 32) and predictive validity (measured at ages 32 and 34) of the construct, work-relationship balance, and to begin to bridge the gap by introducing a developmental perspective to examine how success in age-salient developmental tasks and quality of age-salient developmental relationships across development (measured across earlier developmental periods) affects later work-

relationship balance in adulthood. Specific hypotheses were derived based on the literature reviewed above and are summarized below.

Concurrent Predictors. A set of concurrent predictors of work-relationship balance were examined in order to establish concurrent validity of the construct, using three broad categories of predictors in keeping with the literature (Eby et al., 2005).

Work domain predictors. It is hypothesized that those reported higher levels of work involvement at age 32 (i.e., higher number of work hours) are expected to report lower levels of work-relationship balance at age 32, in keeping with the resource drain model's assertion that as one spends more time in the work domain, it would reduce the available time for use in the family/ relationship domain (associated with higher levels of work-relationship conflict and, thus, lower levels of work-relationship balance). In addition, it is hypothesized that for those who reported higher levels of stress at work at age 32, they are also expected to report lower levels of work-relationship balance at age 32. Given the importance of social support at work, it is hypothesized that lack of social support at work would predict a lower level of work-relationship balance. Finally, characteristics of job, such as job type, are another important predictor of work-relationship conflict (and hence work-relationship balance). Characteristics of job at age 32 are examined, given there is evidence suggesting individuals with higher educational attainment might be more prone to work-relationship conflict (Ammons & Kelly, 2008); however, these analyses are exploratory and no specific predictions are made.

Relationship/ family domain predictors. Parallel to the earlier discussion on work domain predictors, according to the resource drain model, spending more time in the

relationship domain is linked with a reduced amount of time available for the work domain. It is, thus, hypothesized that for individuals reported spending more time with partner/ family at age 32, they would have a lower level of work-relationship balance at age 32. In addition, given the close relation between marital conflict and work-family conflict, it is hypothesized that those with a higher level of conflict in relationship and lower level of satisfaction in relationship at age 32 would be expected to have a less favorable level of work-relationship balance at age 32.

In keeping with the literature on the effect of parental role status on work-relationship balance, one prediction is that having a child (of any age) at age 32 would negatively predict work-relationship balance. Furthermore, given having children of younger ages at home typically represent higher levels of family demands and parenting responsibilities (i.e., requiring more time of the parents), it is hypothesized that the number of children living at home and their ages would be associated with levels of work-relationship balance at age 32.

Person variable predictors. In keeping with the goal to replicate previous work in the field, personality is examined as a factor in predicting work-relationship balance. It is hypothesized that individuals high on neuroticism (self report measure at age 32) would report experiencing higher levels of work and relationship stress and, subsequently, a lower level of work-relationship balance at age 32. In contrast to neuroticism, extraversion is often perceived as "resources," and the hypothesis is that individuals reported high on extraversion are expected to have higher level of work-relationship balance. Furthermore, conscientiousness has been linked with job performance (across a

wide range of job types), and it seems likely that someone who is more conscientiousness would be better at managing his or her time, energy, and resources for his or her roles in the work and relationship domain and, thus, minimizes the level of experienced work-relationship conflict (i.e., better work-relationship balance). Thus, it is hypothesized that those high on conscientiousness would have better work-relationship balance.

Predictive Validation. Work-relationship experiences and work-relationship balance (or work-relationship conflict) can also be viewed as risk factors and, thus, are also influential determinants of one's overall functioning, including physiological health, well-being, and psychosocial functioning.

Concurrent life satisfaction. Based on the evidence from cross-sectional findings that poorer work-family balance is correlated with lower life, work, and relationship satisfaction, it is hypothesized that work-relationship balance at age 32 would positively predict one's satisfaction with life, work and relationship.

Physical and mental health. Past research has shown health consequences of work-family conflicts. A hypothesis to examine the predictive validity of work-relationship balance is that those individuals with lower work-relationship balance at age 32 would have poorer physical and mental health outcomes at age 34, controlling for baseline information at age 32.

Psychosocial functioning. Cross-sectional findings suggest that poorer work-family balance negatively predicts satisfaction with life, work, and relationship, and given the limited available data at age 34 assessment, only broad predictions are able to be made with respect to work and relationship functioning outcomes. It is hypothesized

that those who reported lower level of work-relationship balance at age 32 would be less likely to be employed and less likely to be in a romantic relationship at age 34. Furthermore, those reported higher level of work-relationship balance at age 32 and had a romantic partner then is hypothesized to be more likely be with the same partner (i.e., stability of relationship) at age 34.

Developmental Pathways. Based on a developmental tasks framework, a set of models, paralleling the developmental findings of work competence and relationship competence, is developed with regard to the hypothesized developmental pathways of work-relationship balance in adulthood.

Relationship pathway models. To examine the contributions of significant close relationships (parent-child relationship, peer relation, friendship, romantic relationship) across development, a set of social functioning models predicting to work-relationship balance at age 32 are examined (models are described in detailed below). It is hypothesized that the relation between quality of relationship in infancy on adult work-relationship balance would be mediated by quality of earlier age-salient relationships and romantic relationship in adulthood. Furthermore, it is hypothesized that there might be direct effects of earlier age-salient relationships' quality on work-relationship balance in adulthood. Finally, there is also possibility of direct effect of infant social functioning on work-relationship balance on work-relationship balance.

Academic achievement/ peer competence pathway models. To examine the contributions of academic achievement and peer competence across development, a set of academic/ peer functioning models was developed to predict to work-relationship balance

in adulthood at age 32, based on developmental findings of work competence (models are described in detailed below). It is hypothesized that the relation between academic achievement and peer competence in middle childhood on adult work-relationship balance (age 32) would be mediated by achievement and peer competence in adolescence and adult work functioning. It is also possible that academic achievement and peer competence would have direct effects on work-relationship balance in adulthood. Finally, direct effects of academic achievement and peer competence in middle childhood on work-relationship balance in adulthood might be a possibility as well.

Gender is examined as a possible moderator of all predicted effects described above given the likely gender difference in work-relationship balance in adulthood. These analyses are primarily exploratory in nature, so no explicit hypotheses are made.

Method and Measures

Participants

Data for conducting analysis and testing models described above were drawn from the Minnesota Longitudinal Study of Risk and Adaptation (MLSRA; Sroufe et al., 2005). MLSRA is an on-going, prospective longitudinal study of at-risk children and their families. The original sample of 267 primiparous mothers were recruited in 1973 during their third trimester in pregnancy when they were receiving prenatal care from public health clinics. At the time of recruitment, all of the mothers were low in socioeconomic status, and their ages ranged from 12-34 years ($M_{age} = 20.6$ years). The majority of the mothers were single (61%), and had less than 12 years of formal education (59%). Children's racial and ethnic background (65% White) was

representative of the urban poor population in Minneapolis at that time. Approximately 50 mothers dropped out or moved away during the first two years of the project. While attrition has been low, over time, additional participants discontinued their involvement, had died, or could not be located.

The current analyses focused primarily on a subset of target participant who completed the age 32 assessment assessing on psychosocial outcomes in adulthood ($N =$ 164, 51% female, 49% male). In addition, frequent data collection and extensive multi-methods have provided information about individual functioning and relationship experiences across various developmental periods. In the subsample, 66% of participants were White, 11% were black, and 23% were of mixed race, other, or unknown race. Average maternal age at birth was 20.8 years (age range 15-34 years). Fifty-eight percent of mothers were single at the time of the target participant birth.

To determine whether this subset was different from the full sample, a series of comparison tests were run on demographic variables. Non-significant t-tests indicated no differences between the attrition group and the full sample as well as between the full sample and this subsample on mother's socio-economic status (prenatal SES), age, marital status, educational level, or risk status at the time of birth. Furthermore, non-significant chi-square tests revealed no difference between the subsample and the full sample on the distribution of race and gender.

Measures

Role balance, overload, ease (relationship-work balance; 32 years). At age 32, participants completed Balancing Your Life Questionnaire (Marks & MacDermid,

1996). This measure, with three separate scales, was used to tap into the work-relationship construct. Role balance scale (4 items) was developed to assess the different nuances of the role balance construct: the balance of enjoyment across roles, the balance of attention, the balance of satisfaction across roles, and the balance of effort (e.g., "I am pretty good at keeping different parts of my life in balance; I generally don't let things slide"). Responses are made on a 1 (*strongly disagree*) to 7 (*strongly agree*) scale.

Role ease (6 items) was designed to assess the ease of any role performance in the total role system (e.g., "to have some quality time with friends," "to get housework, laundry, and other chores done," and "to have satisfying leisure time"). The questions were rated on 1 (*very easy)* to 4 (*very difficult*) scale. To reflect the name of "role ease," scores were reversed coded so that a higher score indicates a higher level of role ease.

Role overload scale (8 items) was designed to assess role strain (e.g., "too many demands on my time." "can't ever seem to get caught up," and "seem to have to overextend myself in order to be able to finish everything I have to do"). The questions were responded on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale. Responses were averaged within each scale for use in the present analyses. Reliabilities for the three scales were high, $\alpha_{balance}$ = .80, α_{ease} = .79, and $\alpha_{overload}$ = .91.

Life satisfaction (32 years). At the age 32 assessment, participants completed the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), including five items designed to assess global perceptions of life satisfaction. Responses were made on a 1 (*strongly disagree*) to 7 *(strongly agree)* scale. Responses were averaged for use in the present analyses. Reliability of the scale for the present sample was high, α =

.90.

Current employment status (ages 32, 34). At both of the age 32 and age 34 assessments, participants reported whether they were employed (regardless of the number of work hours), coded 0 (*not employed*) or 1 (*employed*).

Work experience variables (32 years). At age 32, participants were given a self-report questionnaire, Work Experience Questionnaire (adapted from Mortimer, 1995), to complete. This questionnaire was designed to assess work adaptation and functioning and includes items measuring *job satisfaction*, *pressure/ stress*, and *social support* from co-workers and supervisors in the work place. Participants also provided employment history including type of work, employment length, work hours, and salary information for each of the prior and current job. *Number of current jobs* and *weekly hours worked* were computed based on the employment history. *Occupational prestige* was coded using Total Socio-Economic Index (TSEI) scores (Hauser & Warren, 1997). The scores reflect the typical education level, earnings, and prestige associated with different types of occupations.

Relationship status information (ages 32, 34). At both of the age 32 and age 34 assessments, participants reported whether they were in a romantic relationship, coded 0 (*no partner*) or 1 (*with partner*).

Relationship experience variables (32 years). At age 32, participants who were in romantic relationships of 6 months or longer were interviewed about their experiences in the current relationship. As a part of the interview, participants rated how often they spent time with partner (*Time spent with partner*), how often they fight (*Frequency of*

conflict), and how satisfied that they are with the relationship (*Target's relationship satisfaction*) and how satisfied they think *their partner* is with the relationship (*Target's perception of partner's satisfaction*). All questions were rated on a 5-point scale.

Parental status information (32 years). At age 32, participants were interviewed about their parenting and co-parenting experiences. As part of the interview, participants provided information regarding their involvement with children, if any. Data were used to create a dichotomous variable indicating whether the participant was involved with at least one child, coded 0 (*involved with at least one child that s/ he saw daily or more than once a week*) or 1 (*not involved with any child that s/he saw daily or more than once a week*). For the purpose of the study, both biological and non-biological were considered.

Neuroticism, extraversion, and conscientiousness (32 years). At age 32, participants completed the Berkeley Personality Profile (BPP; Hararay & Donahue, 1994). This measure was designed to assess five dimensions of personality. Responses were made on a 1 (*disagree strongly*) to 5 (*agree strongly*) scale. The present study only used 3 subscales: neuroticism (α = .84), extraversion (α = .86), and conscientiousness (α = .69) in analyses.

Emotional dysregulation (32 years). Emotional dysregulation was assessed by the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). This is a 36-item self-report questionnaire designed to provide a comprehensive measure of the difficulties in emotion regulation in adults. A total of six dimensions was assessed, including lack of awareness of emotional responses, lack of clarity of emotional

responses, non-acceptance of emotional responses, limited access to emotion regulation strategies perceived as effective, difficulties controlling impulses when experiencing negative emotions, and difficulties engaging in goal-directed behaviors when experiencing negative emotions. Responses were rated on a 1, *almost never*, to 5, *almost always*, scale, indicating how often each statement apply to participants. The present study used the total score in analyses. Reliability of the scale for the present sample is acceptable ($\alpha = .81$).

Life stress (age 32). Life stress at age 32 was assessed using the Life Events Schedule (LES; Egeland, Breitenbucher, & Rosenberg, 1980). The LES has 41 interview items that asks about the presence and severity of problems, such as with family, work, neighbors, finances, violence, health, and the law during the past year. Trained raters coded each participant's responses to the LES based on: (1) the total number of stressful items checked, and (2) the intensity of disruption stemming from each checked item on a scale ranging from 0 (*no disruption due to changing life event*) to 3 (*severe disruption*). The interrater reliability (*ICC)* was .99.

Household SES (age 32). SES at age 32 was a composite of the following three components: highest education level attained, annual household income (including partner's contribution, if applicable), and occupational prestige. Annul household income includes the sum of earning from participants' current job(s), earnings from partners' job(s), and other sources of income (e.g., income from rental property; SSI; illegal sources, such as drug money). Occupational prestige was coded using the Socio-Economic Index (TSEI) (Hauser & Warren, 1997). If a participant reported more than

one job, the highest occupational prestige was used in calculation. If a participant

reported that his or her partner also contributed to the household income, the highest

educational attainment level and the highest occupational prestige between the two

partners were selected to use in calculation. Scores on each of the three components were

z-scored and then aggregated.   In cases where the participant was unemployed (and if

partner was also unemployed) and no TSEI occupational prestige score was available,

only annual household income and educational attainment were aggregated.

Adult health (32, 34 years). At ages 32 and 34, participants were administered

the Adult Health Survey, adapted from the Adolescent Health Survey to be more

developmentally appropriate for adults, (Blum, Resnick, & Bergeisen, 1989).

Participants rated their self-perception of their overall physical and mental health status

(subjective health status). Responses were made from 1 (*poor*) to 5 (*excellent*), scale.

Romantic relationship stability between ages 32—34. At the age 32 and 34

assessments, participants reported their partners' first name and length of the relationship.

The information was used to create a dichotomous variable indicating whether the

participant was with the same partner between ages 32 and 34, coded 0 (*not with the*

same partner between ages 32 and 34) or 1 (*with the same partner between ages 32 and*

34).

Work functioning (32 years). At age 32, participants were interviewed and

responded to paper-and-pencil questions about their work experiences. Participants were

asked to provide their employment history and details and describe their plans for future

employment. Trained coders rated work status based on the employment as well as work

ethic to measure (a) the degree to which the participant indicates that work is an important part of his or her life and identity/sense of self, as well as (b) the level of irresponsible behavior the individual reports having engaged in at work in the past year (5-point scale). Inter-rater reliabilities were high for the two scales: $ICC_{\text{work status}} = .97$, $ICC_{\text{work ethic}} = .89$. For the purpose of the current study, a composite of general work functioning at age 32 was derived. Standardized scores on each of two scales were calculated and aggregated in order to create a single indicator of work functioning at age 32.

Relationship functioning (32 years). At age 32, participants who were in romantic relationships of 6 months or longer were interviewed about their experiences in that current romantic relationship. A six-month cutoff was used to ensure that each relationship was reasonably well-established. The interview, which was audiotaped, asked participants to describe the qualities of their current partner/relationship in response to a standard set of questions, such as questions about times they felt especially close to their partner, whether they could be completely themselves, how the couple resolved conflict, and relationship commitment. Trained coders rated the interviews on scales of relationship security, conflict resolution, commitment, and overall quality (5-point scales).). Inter-rater reliabilities (*ICC*s) were high for these scales, ranging from .90 to .95. The present study used a composite of these five scales to derive an overall romantic relationship quality scale. Individual scales were first z-scored and then aggregated.

Relationship effectiveness (ages 23, 32). At age 23 years and 32 years, participants were interviewed about their current romantic relationship *and* past relationship(s). The relationship effectiveness scale was a trained coder rated overall evaluation (5-point scale) of the degree to which participants were competently engaged in romantic relationships between ages 21-23 years (or between ages 28-32 years) based on their response to a set of interview questions about history of romantic relationships and the quality of those relationships. Effectively engaged participants demonstrated a record of forming and maintaining high quality relationships that appeared to contribute to a positive sense of self. Lower scores were assigned to participants who were unable to form and maintain romantic relationships for more than a short period of time, or were involved in relationships that were emotionally distant and distrusting, or were characterized by chronic intense conflict, victimization, or active rejection. The interrater reliabilities were: $ICC_{23} = .94$, $ICC_{32} = .98$.

Work competence (age 23). At age 23, participants were interviewed about their school and work experiences. Measures and audiotaped interviews were coded for the degree to which the participant showed reflectivity about his/ her career plans, the degree to which s/he had engaged in exploring potential career opportunities, and finally the degree to which the participant's thinking about work and career goals showed maturity (all coded on a 5-point scale). The interrater reliabilities were ranged from .74 to .84. A composite of the three scales was used in the present analysis, where scores from individual scales were first z-scored and aggregated across.

Infant attachment security (12 and 18 months). Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978) was conducted when participants were 12 and 18 months old. This laboratory-based procedure was designed to assess the quality of the attachment relationship (e.g., secure vs insecure) at each age by activating infant attachment behaviors with a series of stressful infant-parent separations and reunions. A combined score for ages 12 and 18 months was derived based on whether participants were classified as insecure at both time points (0), secure at one time point (1), or secure at both time points (2).

Peer competence (7, 8, and 9; 16 years). When participants were 7, 8, and 9 years old as well as 16 years old, their teachers ranked participants' peer competence within their class based on a description of a socially competent child. Teachers ranked all children in their class from the most socially competent to the least competent. Each participant's percentile rank was calculated (taking the number of children below that child's ranking divided by the number of children in the class and multiplied by 100) and used in subsequent data analyses. For the current study, an average of the child's rank for between ages 7 and 9 years was used as the peer competence in middle childhood.

Academic achievement (7, 8, and 9). At ages 7, 8, 9, the Peabody Individual Achievement Test (PIAT) (Dunn & Markwardt, 1970), was administered. PIAT was designed to tap children's academic achievement by assessing reading, mathematics, and spelling. An average of the child's total scores for between ages 7 and 9 years was used as academic achievement score in middle childhood.

Parent-child relationship (13 years). When participants were 13 years old, the quality of the parent-child relationship was coded from videotapes of participants interacting with their primary caregivers (usually their birth mother) in a series of developmentally appropriate problem solving tasks. Trained coders rated the general functioning of the dyads in terms of the degree of balance between the needs of the relationship and the needs of the individual on a 7-point scale. Higher scores indicated that the development of the individual family members was supported by the relationship, and enthusiasm, elaboration, and enjoyment in the tasks as well as a differentiation of roles was observed. Interrater reliability of this scale was .63.

Friendship security (16 years). At age 16 years, participants completed a semi-structured interview about their current, non-romantic closest friend relationships. The interview, which was audiotaped, asked participants to describe the qualities of their current closest friend in response to a set of questions. Participants were, for example, asked how easy they could share things (good and bad) with their closest friend and also how close they felt toward the closest friend. Trained raters coded each interview on a global friendship security scale. This 7-point scale reflected the extent to which each adolescent reported feeling as if s/he could be her/himself in that friendship and expected his/her closest friend to be available and supportive. Interrater reliability of this scale was .59 (Spearman-Brown correction, .74).

Academic achievement (16 years). When participants were 16 years old, the Woodcock-Johnson Tests of Achievement (WJ-RAC; Woodcock & Johnson, 1989/ 1990) was administered to assess achievement. Using this nationally-standardized

measure, passage comprehension (e.g., comprehension, vocabularies) and calculation (mathematic calculation) skills were measured. An average of the two scores was used in the present study.

Results

Descriptive Statistics

Table 1 reports means, standard deviations, and tests for gender differences (independent sample t-tests) for three primary work-relationship balance scales (role balance, role ease, and role overload) at age 32, as well as for other major demographic variables in adulthood in this sample. Males reported having a higher level of role ease than females did, and also a lower level of role overload than females did. The mean number of jobs that the participant held at age 32 is approximately one ($M = 0.93$, $SD = 0.58$) in this sample. The mean number of hours worked per week is approximately 41 hours; males reported a slightly higher weekly work hours than females did. The majority of the participants (79%) in the sample was involved in a romantic relationship at age 32. The mean number of children the participant saw daily or more than once a week is 1.29, with females reported a higher number of children than males did. In terms of education, 7.3% of the sample did not graduate from high school while 18.3% completed a four-year college degree or more.

Age 32 Work-Relationship Balance Scales Construct Validity

The construct validity of the age 32 work-relationship balance scales (role balance, role ease, and role overload) was supported by an array of self-report variables collected at the age 32 assessment as well as coder rated qualitative scales based on

information collected from several in-depth interviews of participants' psychosocial functioning at age 32 and developmental histories.

Concurrent self-report measures. As shown in Table 2, role balance was positively related to role ease. There was an inverse relation between role balance and role overload. Role ease and role overload was also negatively associated.

Role balance was positively correlated with concurrent participants' reports of levels of work satisfaction, relationship satisfaction and life satisfaction at age 32. Life stress was inversely related to participants' reports of their levels of achieving balance in various adult roles. The role ease measure was positively correlated with concurrent self-report of how satisfied participants were with work, relationship, and life in general when they were 32 years old. There was a negative relation between participants' ability to transition from multiple roles (role ease) with overall life stress at age 32. Finally, there was an inverse relation between age 32 role overload and participants' perceptions of work, relationship, and life satisfactions. In addition, role overload was positively related to overall life stress, although this effect was marginally significant ($p = .07$). The results of correlations between these variables by gender (not shown) showed patterns similar to correlations collapsed across gender.

Coder rated qualitative scales of psychosocial functioning. As shown in Table 3, positive role balance at age 32 was positively associated with trained coder ratings of one's work ethic, relationship effectiveness and current romantic relationship quality in adulthood. There was an inverse relation between role ease and romantic relationship quality, but not work ethic or relationship effectiveness. There was no relation between

role overload with any of the qualitative coder ratings on work and relationship functioning in adulthood. However, given the gender differences in role overload, follow-up analyses were conducted to examine correlations between role overload and qualitative ratings on psychosocial functioning by gender. Results indicated that for males, there was a positive relation between role overload and work ethic ($r = .23$, $p < .05$). For females, role overload was inversely associated with relationship effectiveness ($r = -.22$, $p < .05$) and romantic relationship quality ($r = -.44$, $p < .01$) in adulthood.

Concurrent Predictors of Age 32 Work-Relationship Balance Scales

Analytic Plan. A series of multiple regression analyses were run to examine concurrent predictors of work-relationship balance scales at age 32. Domains of predictors included: (a) work domain, (b) relationship domain, and (c) person domain. First, concurrent predictors were examined *within* domain for role balance, role ease, and role overload separately. This was designed to examine unique effects and the relative strengths of model parameters within each domain while controlling for covariates within domain. To test for the robustness of the effect, gender was included as a control variable in all regression models given there were gender differences in the mean levels of role ease and role overload at age 32.

Second, in addition to unique main effects, exploratory analyses examining gender as a potential moderator of the predicted effects were also run to test for interaction effects. Models included interaction terms examined if gender moderated the effects of concurrent predictors on age 32 work-relationship balance. Follow-up analyses

also included all two-way interactions in the regression models. Variables were centered on their means prior to creating the interaction terms (Aiken & West, 1991).

Finally, for a more stringent analysis, regression models included concurrent predictors from all domains were examined to test for uniqueness of each predicted effect while controlling for predictors from other domains and to avoid potential confounding. Results from these models provided a more dynamic and integrated view of understanding the interface between work and relationship functioning and the balance. Additional moderating effects across domains (e.g., work domain predictor × relationship domain predictor) were also examined to detect potential buffering effects on work-relationship balance at age 32.

The results are reported as unstandardized estimates as well as standardized regression coefficients in order to compare the relative strength of model parameters. However, for regression analyses modeling interaction effects, unstandardized regression coefficients are reported instead. Standardized estimates calculated by most statistical packages that use techniques without taking into account the fact that an interaction effect is computed as the product of two predictors in the model, and, thus, the standardized coefficients produced for these interaction effects are often inaccurate (Preacher, 2010).

Work Domain Predictors. Descriptive statistics and zero-order correlations for variables in the work domain analyses are shown in Table 4. Multiple regression results predicting three work-relationship balance scales as a function of work domain predictors are summarized separately in Table 5. There was no evidence of main effects of weekly work hours on role balance, ease, and overload. However, concurrent stress at work

negatively predicated age 32 role balance, while controlling for gender. As hypothesized, social support at work also predicted positive role balance. There was also a significant positive main effect of work satisfaction in predicting role balance. Gender was examined as a moderator of the work domain predictors in predicting positive role balance, and there was no evidence for significant interactions (results not shown). Thus, these effects held for both females and males. None of the other two-way interactions were significant (results not shown).

Satisfaction in work experiences also positively predicted the ease of any role performance at age 32. There was also a positive relation between social support from co-coworkers and supervisors and role ease. Gender was examined as a moderator of the work domain predictors in predicting role ease as well as all other two-way interactions, and there was no evidence for significant interactions (results not shown).

As expected, pressure and stress experienced at work positively predicted one's level of role strain (role overload). There was also a main effect of gender on role overload. Females' levels of overload were higher ($M = 2.98$, $SD = 0.88$) than males' ($M = 2.64$, $SD = 0.75$). There was a negative effect of work satisfaction on role overload at age 32. Gender was examined as a moderator in predicting role overload, and there was no evidence of significant interactions as well as all other two-way interactions (results not shown).

Additional follow up analyses were also conducted to include participants' occupational prestige to control for the potential effects of characteristics of job on all three work-relationship balance scales. Patterns of results remain the same even after

controlling for the typical education level, earnings, and prestige associated with various occupations (as indexed by occupational prestige).

Exploratory mediation analysis. As expected, given that there was a somewhat moderate negative relation between the amount of pressure and stress experienced at work and work satisfaction, exploratory follow up analyses were conducted to examine the mediating role of work-relationship balance scales on the effects of work stress on work satisfaction at age 32. First, there was a significant initial relation between work stress and work satisfaction (B = -.27, *SE* = .11, p < .05) that was non-significant after controlling for role balance at age 32 (B = -.09, *SE* = .10, p = .39), which indicates role balance at age 32 mediates the effect of job stress and pressure on work satisfaction (Z = -3.15, p < .01).

The Sobel test assumes that the sample size is large, so in order to confirm that above results were robust, bootstrapping procedure was performed. Bootstrapping is a non-parametric approach to the estimation of effect sizes that is not based a stringent assumption that the sample size is large (Preacher & Hayes, 2004). Bootstrapping was done using SPSS Macro for Simple Mediation (Preacher & Hayes, 2004), and 1000 bootstrap samples were requested. The bootstrap estimates were similar to the results produced by raw data (estimate of indirect effect = -.19, 95% CI [-.33, -.07]).

Second, there was no evidence for a significant mediating effect of role ease on the relation between stress at work and satisfaction in work experiences. Finally, results indicated that the severity of role overload mediates the relation between stress in the workplace and one's satisfaction in work experiences (Z = -2.22, p < .05), such that there

was a significant negative relation between work stress and work satisfaction ($B = -.27$, $SE = .11$, $p < .05$) that became non-significant after controlling for role overload at age 32 ($B = -.09$, $SE = .10$, $p = .11$). Results from the bootstrapping procedure provide evidence for a similar pattern of mediating effect (estimate of indirect effect = -.10, 95% CI [-.19, -.02]).

Relationship Domain Predictors. Descriptive statistics and zero-order correlations for variables in the relationship domain analyses are shown in Table 6. Multiple regression results predicting work-relationship balance scales as a function of relationship domain predictors are summarized in Table 7. Frequency of conflict in romantic relationship negatively predicted role balance at age 32 ($p = .10$). There was also a positive main effect of target's satisfaction with relationship in predicting age 32 role balance ($p = .09$). In addition, contrary to the hypothesis that simply having a parental role would predict more work-relationship conflict (i.e., more negative role balance), results indicated that a main effect of parental status was found in predicting role balance ($p = .05$), such that those who were involved with at least one child (seeing daily or more than once a week) reported higher ratings of role balance. For those participants involved in at least one child daily or more than once a week, age of youngest child was further controlled to examine its potential effect on role balance. A similar pattern of results (not shown) was found, controlling for the age of the youngest child that the participant was involved.

Additionally, there was a main effect of gender on role ease at age 32. Females' levels of role ease were lower ($M = 2.70$, $SD = .62$) than males' ($M = 3.03$, $SD = .60$).

Amount of time spent with romantic partner positively predicted the ease with roles. Similar to the findings in predicting role balance, there was also a marginal main effect of parental status on role ease, such that those who were involved with at least one child (seeing daily or more than once a week) reported higher levels of role ease. For those involved with at least one child daily or more than once a week, a similar pattern of results (not shown) was found, controlling for the age of the youngest child that the participant was involved.

There was also a main effect of gender on role overload in adulthood. Females reported higher levels of role overload ($M = 3.09$, $SD = .83$) than males did ($M = 2.53$, $SD = .82$). Target's perceived partner satisfaction with relationship negatively predicted role overload ($p = .07$). However, in the subsample of individuals with parental role (involved daily or seeing more than once a week), after controlling for age of the youngest child involved, the effect of perceived partner's satisfaction with relationship on role overload became significant. Specifically, there was an inverse relation between perceived partner's level of relationship satisfaction and role overload ($B = -.57$, $SE = .28$, $p < .05$).

Gender moderation analysis. Given there were main effects of gender in some of these models, gender was then examined as a moderator of the relation between relationship domain predictors and role balance, ease, and overload in adulthood. Moderated multiple regression results for predicting work-relationship balance as a function of relationship domain predictors and their interactions with gender are summarized in Table 8. When modeling all main effects and their interactions with

gender in predicting role balance, there was no significant main effect or interaction effect. There was, again, a main effect of gender on role ease at age 32 when controlling for other main effects and their gender interactions.

Finally, there was a significant main effect of gender on role overload. Furthermore, a significant interaction between gender and target's perceived *partner*'s relationship satisfaction in predicting target's levels of role overload was found. More specifically, simple slopes analyses revealed that among individuals with lower perceived partner's satisfaction with relationship (1 *SD* below the mean), females reported higher levels of role overload than males did ($B = 1.44, p < .01$). However, for those with higher perceived partner's satisfaction with relationship (1 *SD* above the mean), females reported lower levels of role overload than males did ($B = -.29$, *ns*). This difference among participants with higher perceived partner's relationship satisfaction was not statistically significant. Gender, in other words, appears to moderate the effects of low perceived partner's satisfaction on one's level of role overload in adulthood. These moderated results are displayed in Figure 1.

Person Variables. Descriptive statistics and zero-order correlations for variables in the person variables domain analyses are shown in Table 9. Multiple regression results predicting work-balance scales as a function of person variables are summarized in Table 10. First, there was a positive relation between conscientiousness and role balance at age 32. Neuroticism negatively predicted role balance (marginal significance). Also, emotional dysregulation negatively predicted age 32 role balance. Second, there was a main effect of gender in predicting role ease at age 32 (as also seen in the relationship

domain predictor models). Finally, consistent with the hypothesis, there was a direct relation between neuroticism and the severity of role overload. Similar patterns of results also emerged even after controlling for life stress at age 32 or age 32 SES.

Gender moderations were also examined in follow-up analyses, and no effect was found (results not shown).

Predictors from All Domains. Although it was important to analyze effects of predictors within domain separately, a more stringent analytic method was also used. Specifically, predictors from each domain were entered simultaneously in models of multiple regression analysis predicting each work-relationship balance scale. For each of the dependent measures (role balance, role ease, role overload), the regression analysis included all predictors from work, relationship, and person variable domains. This allowed closer examination of whether predictors from each different domain exerted independent, unique effects on role balance, ease, and overload at age 32 while controlling for predictors from other domains. Gender, again, was controlled in all analyses. Multiple regression results predicting work-balance scales as a function of all predictors from all domains are shown in Table 10.

Role balance. Results indicated that the statistically significant main effects for social support at work and work satisfaction on positive role balance were retained when predictors for relationship domains and person variables were statistically controlled. Emotional dysregulation negatively predicted age 32 role balance; however, this effect dropped to marginal significance after controlling for predictors from other domains.

There was no evidence for any unique effect for relational domain variables in predicting role balance after controlling for predictors from other domains.

Role ease. Results also showed that the effect of social support from coworker and supervisor at work remained to positively predict role ease at age 32 when controlling fro variables from each domain. Although there was a main effect of work satisfaction on role ease in earlier analysis, this effect became non-significant with more stringent statistical controls included. There was also a positive relation between time spent with partner and role ease. Parental status remained to predict role ease at marginal significance level. Finally, although emotional dysregulation did not predict role ease in the person variable domain analysis, when controlling for effects from other domains, an inverse relation emerged such that difficulty in emotion regulation predicted less ease with multiple roles in adulthood.

Role overload. Although stress and pressure and satisfaction at work both uniquely predicted role overload in earlier within domain analysis, these effects became non-significant after controlling for a complete set of variables from different domains. Similarly, there was no evidence for a significant main effect from work domain, relationship domain, as well as person variables when controlling for all predictors from different domains simultaneously. The effect of neuroticism on role overload dropped to non-significance. Significant gender effects on role ease and role overload were retained when statistically controlling for all other hypothesized predictors from each of the domains.

Gender and other moderations. Additional analyses were conducted to examine the moderating role of gender on variables in predicting work-relationship balance as well as other two-way interactions across domains with all controls from each domain were included. However, results of this analysis (not shown) did not reach levels of significance ($p > .05$) after including the controls. For example, there was a marginal significant interaction between stress at work and the age of the youngest child on role ease ($p < .08$). Specifically, when being parentally involved with a younger child, it appears that individuals with lower levels of work stress and job pressure experienced higher role ease than those with higher levels of work stress.

Additionally, a marginal significant interaction between social support at work and parental status in predicting role overload was found ($B = -.33$, $p = .09$). Social support at work appears to moderate the relation between whether participants were involved with at least one child daily or more than once a week on their levels of overload. High social support at work seems to buffer the effect of having a parental role on role overload.

Lastly, for those with a parental role, there was a marginal significant interaction term between work stress and number of kids involved at home explained an increase in variance in role overload ($B = .10$, $p = .09$). These findings, however, should be interpreted with caution as the interaction was only at the level of marginal significance after controlling for all covariates.

Predictive Validity of Age 32 Work-Relationship Balance Scales

Analytic Plan. The next set of analyses examined the predictive validity of the

work-relationship scales. Given work-relationship experiences can also be viewed as risk factors and could be, therefore, influential in determining one's overall functioning, age 32 role balance, role ease, and role overload were examined as predictors of life satisfaction at age 32 as well as future functioning including physical health, mental health, and demographic status at age 34. For concurrent predictive validity of the three work-relationship balance scales, multiple regression analyses were run to examine the main effects of role balance, role ease, and role overload on life satisfaction at age 32. In order to test the robustness of the predicted main effects, a set of control and covariate variables were included: gender, SES, life stress, whether the participant was employed, whether the participant was in a relationship, as well as physical and mental health status at age 32 to control for potential confounds in predicting life satisfaction.

Multiple regression and logistic regression analyses were run to examine the predictive validity effects of age 32 role balance, role ease, and role overload on future (age 34) self-report physical and mental health, employment status, relationship status, and relationship stability (if data available). Baseline levels (age 32) of the outcomes (age 34) were controlled in analyses.

Life Satisfaction (age 32). Descriptive statistics and zero-order correlations for variables in the predictive validity of work-relationship balance on life satisfaction at age 32 are shown in Table 12. Multiple regression results predicting satisfaction with life as a function of role balance, role ease, and role overload plus covariates are summarized in Table 13. There were significant main effects of role balance and role ease on higher life satisfaction at age 32. Role balance and role ease remained to be unique independent

effects on positive life satisfaction after controlling for covariates. Of the covariate variables included in the follow-up model, there was an inverse relation between life stress at age 32 and life satisfaction. Having a partner and overall mental health also positively predicted satisfaction with life at age 32. Given the gender differences in work-relationship scales, gender was examined as a moderator of these effects; however, there was no significant interaction (results not shown).

In order to control the potential confound of work satisfaction on life satisfaction for those participant who were working at age 32, a follow-up model was examined. Pattern of results was similar to the full sample, without controlling for work satisfaction for those who were employed at age 32 (not summarized in Table 13). Role balance and role ease positively predicted life satisfaction ($\beta = .25$, $p < .01$; $\beta = .17$, $p < .01$, respectively), controlling for work satisfaction ($\beta = .29$, $p < .01$) and other covariates. Likewise, another follow-up model was run to examine the potential contribution of relationship satisfaction on life satisfaction for those who were in a relationship at age 32. Pattern of results was similar to the full sample. Specifically, there were positive relations between role balance and role ease on life satisfaction ($\beta = .39$, $p < .01$; $\beta = .23$, $p < .01$, respectively), controlling for relationship satisfaction ($\beta = .04$, *ns*). Considered together, results indicated evidence of predictive validity of the work-relationship scales (specifically role balance and role ease), with unique effects on life satisfaction.

Physical/ Mental Health (age 34). Descriptive statistics and zero-order correlations for the focal variables in the predictive validity of work-relationship balance skills on age 34 outcomes are shown in Table 14. Multiple regression results predicting

physical and mental health status at age 34 as a function of role balance, role ease, role overload plus age 32 relevant baseline covariates are summarized in Table 15. There were no significant main effects of age 32 role balance, role ease, and role overload on either age 34 self-report overall physical or mental health status, controlling for age 32 baseline physical and mental health status. As expected, age 32 physical health positively predicted physical health at age 34 (β = .60, p < .01), suggesting a relatively strong continuity in the overall physical health between ages 32 and 34, controlling for baseline (age 32) SES and life stress. Similarly, there was a positive relation between age 32 overall mental health and age 34 mental health (β = .44, p < .01), suggesting a strong continuity in the overall self-report mental health status. In addition, age 32 physical health positively predicted age 34 mental health functioning (β = .14, p = .08), controlling for age 32 mental health, SES, and life stress.

Employment Status (age 34). Logistic regression results predicting employment at age 34 as a function of role balance, ease, and overload at age 32 plus controlling for gender, Age 32 SES and employment status are summarized in Table 16. For every one unit increase in a participant's level of role overload at age 32, the likelihood of being employed at age 34 decreased slightly (.48 times; marginal significance), controlling for the other factors in the model. Being a female, the likelihood of being employed at age 34 decreased slightly as well (.21 times). Results also indicated that every one unit shift towards higher SES at age 32 corresponded with an increased likelihood of being employed at age 34 by 2.72 times, controlling for all the other factors in the model. Finally, as expected, being employed at age 32 increased the likelihood of being

employed at age 34 by 113 times, indicating a strong continuity across time.

Relationship Status (age 34). Logistic regression results predicting whether or not participants were in a romantic relationship at age 34 as a function of role balance, ease, and overload at age 32 plus controlling for relevant age 32 covariates (SES, relationship status) are reported in Table 17. Being in a relationship at age 32, the likelihood of also being in a romantic relationship at age 34 increased by about 8 times. Also, results indicated that controlling for everything else in the model, for every one unit increase in one's level of role ease at age 32, the likelihood of having a romantic partner at age 34 increased by about 2 times ($p = .07$).

Relationship Stability (ages 32-34). Logistic regression was used to predict relationship stability between ages 32 and 34 (i.e., with same romantic partner) as a function of age 32 work-relationship balance scales and life stress and relationship quality at age 32. There was no evidence for role balance, role ease, or role overload to have an effect on the likelihood of having a same romantic relationship partner between ages 32 and 34 (results not shown). Controlling for gender, role balance, role ease, role overload, and life stress at age 32, for every one unit increase in the level of one's relationship quality at age 32, the likelihood of having a same romantic partner at age 34 increased by about 5 times ($p < .05$).

Developmental Pathways to Work-Relationship Balance Analyses

Analytic Plan. Conceptualizing work-relationship balance in adulthood as one important aspect of competence in adulthood, a series of path models were derived and tested to examine whether success in earlier salient development tasks and salient

relationships have effects on life balance in adulthood. These models examined the

contributions of significant close relationship across development (parent-child, peer

relation, friendship, and romantic relationship) on work-relationship balance at age 32

(with the hypothesis that there would be shared pathways in predicting development of

relationship competence and in predicting life balance in adulthood); and (2) the

contributions of academic achievement and peer competence on work-relationship

balance at age 32 (with the hypothesis that there would be shared pathways in predicting

development of work competence and in predicting life balance). Path models were run

using Mplus 5 (Muthén & Muthén, 1998-2009).

  Relationship Pathway Models. A set of three hypothesized models was tested to

examine the effect of social/ relationship functioning across development on adult life

balance. Infant attachment security, peer competence, parent-child relationship,

friendship security, relationship effectiveness, and romantic functioning across

development were selected and modeled given the documented links between these on

the development of relationship competence across time. The first model examined the

influence of infant social functioning on life balance as mediated by later age-salient

relationships functioning (Model 1; see Figure 2). This tested the extent to which infant

attachment security influence proximal age-salient relationship functioning and if this, in

turn, carried forward to influence adult romantic relationship and life balance in

adulthood. The second model tested the direct effects of salient relationships in

childhood and adolescence on life balance in adulthood, above and beyond the influence

of adult romantic relationship functioning (Model 2; see Figure 2). Finally, the third

model examined the additional direct effect of infant attachment security on life balance in adulthood (Model 3; see Figure 2).

Academic/ Peer Competence Pathway Models. A second set of three hypothesized models was tested to examine the effect of academic achievement and peer competence in middle childhood and adolescence on adult life balance. These salient developmental tasks in earlier developmental periods were derived based on developmental tasks framework and developmental perspective on the development of work competence. The first model examined the influence of academic achievement and peer competence in middle childhood on life balance as mediated by work competence in early adulthood (Model 4; see Figure 3). This tested the extent to which functioning in salient developmental tasks in middle childhood influence proximal age-salient tasks and if this, in turn, carried forward to influence adult work functioning and life balance in adulthood. The second model tested the direct effects of academic and peer competence in adolescence on life balance in adulthood, above and beyond the influence of adult work functioning (Model 5; see Figure 3). Finally, the third model examined the additional direct effects of academic achievement and peer competence in middle childhood on life balance in adulthood (Model 6; see Figure 3).

Statistical Approach.

Model selection. The relative fit of all hypothesized models (outlined above) were evaluated using Bayesian methods for model comparisons (Raftery, 1995). The Bayesian information criterion (BIC) was used in model selections. The BICs allow for both nested and non-nested model comparison, with the best fitting model having the lowest BIC

value. Final model were selected using criteria using BIC differences (Bumham & Anderson, 2004). A BIC difference of 10 or larger is considered to have strong evidence to prefer the lowest BIC model, whereas a BIC difference of 2 or less is considered to have equivalent fit between the two models. A BIC difference between 2-10 indicates uncertainty for mode selection. The absolute fit of the models (e.g., CFI, RMSEA) are also be reported.

    Data reduction. Although three separate scales of life balance (role balance, role ease, and role overload) were used in above analyses, in order to reduce the number of model runs and given, to our best knowledge, there is no known developmental literature on the differences/ specificity of the three scales in the developmental context, a principal component analysis was run on the three scales. A single component, hereafter referred to as the age 32 life balance variable, emerged and accounted for 59.3% of the variances. Component loadings for role balance, ease, and overload were: .67, .79, and -.85, respectively. All three scales had primary loadings over .50. Thus, three scales were z-scored first (role overload was reverse scored) and then aggregated across to compute the final composite for analysis. There was evidence of validity support of this age 32 life balance composite variable. Specifically, life balance composite was positively associated with life satisfaction at age 32 ($r = .51, p < .01$), romantic relationship quality ($r = .34, p < .01$), and satisfaction with work ($r = .45, p < .05$). As expected, there was also an inverse relation between life balance composite and emotional dysregualtion ($r = -.44, p < .01$).

Missing data. Participants were included in developmental analyses if they had completed assessment at age 32 ($N = 164$). Amount of missingness has a mean of approximately 10% over all variables and all time points. Full information maximum likelihood estimation (FIML) was used to allow analysis of the entire sample that had life balance outcome data at age 32.

Results – Correlations. Table 18 summarizes the bivariate correlations among variables used in the relationship pathway models to life balance. Results indicated that life balance are significantly, positively correlated with all other variables with the exception of parent-child relationship at 13 years and infant attachment security between 12 and 18 months. Intercorrelations among variables used in the academic and peer competence pathway models to life balance are shown in Table 19. Results indicated that age 32 life balance was not correlated with any developmental variables with the exception of work functioning in 32 years. Work functioning at age 32 was, however, significantly correlated with peer competence in adolescence and middle childhood. Age 23 work competence was correlated with both academic achievement and peer competence from two earlier developmental periods.

Results – Path Analyses.

Relationship pathway models. A comparison of the BICs for the three hypothesized models shows that Model 2, the model wherein earlier relationships in childhood and adolescence directly affect age 32 life balance has the lowest BIC (5519.03), in comparison with the BICs for Model 1 wherein earlier relationships are mediated through romantic functioning in adulthood (5537.11) and Model 3 where

additional direct effect from infant attachment was included (5526.88). This indicates

that that there is substantial evidence to prefer Model 2 (lowest BIC) as compared to

Model 1. However, the differences between Model 2 and Model 3 (i.e., BIC difference =

7.85) suggests that there was unclear preference over Model 2 as compared to Model 3.

However, given the more parsimonious nature of Model 2, it was selected as the final

model, as the additional path of direct effect from infant attachment did not substantially

greatly improve the relative model fit.

     Model 2 demonstrates acceptable absolute fit as well (comparative fit index, CFI

= .944; root mean square error of approximation, RMSEA = .06). Figure 4 depicts the

final model, Model 2, indicating standardized path coefficients. Romantic functioning at

age 32 (β = .23, p < .01), relationship effectiveness at age 23 (β = .10, p = .09), friendship

security (β = .19, p < .01), parent-child relationship (β = .18, p < .05), and peer

competence (β = .20, p <.01) had significant direct effects on life balance at age 32.

Additionally, the model indicated significant paths from infant attachment security to

peer competence in 7-9 years and friendship security in adolescence, peer competence to

parent-child relationship in early adolescence and effectiveness of romantic relationship

engagement at age 23, and friendship security at age 16 to romantic relationship

effectiveness at age 23. Finally, as expected, there was also a significant path from

relationship effectiveness at age 23 to romantic relationship functioning at age 32.

     Follow-up analyses were conducted to examine the potential differences by

gender. Multiple group analysis strategy was used to test the gender invariance (the

equality across females and males). Paths were first constrained to be equal across

groups (males and females), and then another model was run where the parameters were allowed to be freely estimated by the two gender groups. Chi-square difference testing results indicated that there was no evidence of significant gender difference, suggesting that the paths predicting to age 32 life balance did not differ by gender. The lack of finding, however, could also be due to insufficient power to detect potential difference.

    Academic/ peer competence pathway models. A comparison of the BICs for the three hypothesized models shows that Model 4, the model wherein the effects of academic achievement and peer competence on age 32 life balance as mediated through work competence and functioning in adulthood has the lowest BIC (7961.37), in comparison with the BICs for Model 5 with additional direct paths from competence in adolescence, above and beyond work competence and functioning in adulthood (7969.24) and Model 3 where additional direct effects from middle childhood were included (7974.78). This indicates that that there is substantial evidence to prefer Model 4 (lowest BIC) as compared to Model 6 (i.e., BIC difference > 10). However, the differences between Model 4 and Model 5 (i.e., BIC difference = 7.87), suggests that there was unclear preference over Model 4 as compared to Model 5.

    The absolute fit indices for all the models, however, did not demonstrate acceptable fitting of the models. All models had CFI values greater than .90 and the RMSEAs larger than .09. This was not surprising, given the bivariate correlations between life balance at age 32 and the variables included in the academic/ peer pathway models were low. Thus, interpretations of the final academic and peer competence pathway model (the model where the effects of academic achievement and peer

competence on life balance at age 32 as mediated by work competence and working functioning at ages 23 and 32) were not included in the current discussion, due to the fact that path estimates may be inaccurate (because of the less than acceptable model fit).

As a follow-up to the path analysis, however, multiple regression analyses were run to predict age 32 work functioning as a function of competence in earlier age-salient developmental tasks (academic achievement, peer competence) and earlier work competence at age 23. Results indicated that age 23 work competence positively predicted age 32 work functioning ($\beta = .18$, $p < .05$), as well as a positive relation between peer competence in middle childhood and work functioning in adulthood ($\beta = .19$, $p = .06$). Furthermore, simple mediation analysis indicated that the effect of peer competence on work functioning in adulthood was mediated by age 23 work competence ($Z = 1.85$, $p = .05$). Regression results provide evidence to confirm the notion that development of adult work competence does have roots in the success of earlier age-salient developmental tasks. The lack of proper fitting models in the earlier path analysis to examine the academic and peer competence pathway models to predict life balance in adulthood might be explained by the weak relation between age 32 life balance and work functioning at age 32 in the present sample.

Discussion

The present study is one of the first attempts to examine the construct of work-relationship balance from an angle to consider it as an important aspect of adult competence. Findings from the concurrent correlates of work-relationship balance, as measured by levels of role balance, role ease, and role overload, provided concurrent

validity of the construct. The obtained results highlight the dynamic nature of work-relationship balance at age 32 such that predictors of one's work-relationship balance were factors from multiple domains including work, relationship, and person variables. Evidence from concurrent predictive validation analyses also indicates that role balance and ease predicted life satisfaction at age 32. There was, however, no strong support for the predictive validity hypothesis that one's work-relationship balance at age 32 would predict health and psychosocial status outcomes at age 34. Finally, the present findings provide one of the first evidence of the developmental roots/ pathways of adult work-relationship balance success, underscoring the potential important effects of the quality of age-salient close relationships across development on positive work-relationship balance in adulthood.

Concurrent Predictors of Work-Relationship Balance

The results from the within work domain analyses are congruent with evidence linking job stress, social support at work, and work satisfaction to success in work-relationship balance (i.e., positive role balance and ease as well as negative role overload; Bernas & Major, 2000; Carlson & Perrewe, 1999; Ford et al., 2007; Fox & Dwyer, 1999; Frone et al., 1997; Karatepe, 2010). While it is expected that a great deal of overlap exists between work stress and negative work-relationship balance (work-relationship conflicts), it is important to note that stress at work measured in this study focused on *experienced* job stress, reflecting stress or pressure participants were under at work or on the job (e.g., demands and deadlines, disagreements with co-workers). The finding of the present

study corroborates a strong effect of high felt supervisor and co-worker support on ameliorating work-relationship conflict and, thus, positive work-relationship balance.

Unexpectedly, work involvement (as indexed by the number of hours worked per week) was not linked with role balance, ease, and overload in the current study. This is inconsistent with the prior literature based on the resource drain model (Eckenrode & Gore, 1990; Frone, 2003) suggesting that as one spends more time in the work domain, the amount of time available for the other domain's use, such as relationship and family, would decrease. As a result, the level of work-relationship conflict would increase (negative role balance). The present study did not replicate this pattern of association. The discrepancy between the null results from the present study and significant findings in the literature may be attributable to differences in how work time was operationalized. For example, Frone and colleagues (1997) reported a positive association between work time commitment and work-family conflicts, but work time was operationalized to include hours at work as well as time spent on work-related activities that might be brought home in the evening or over the weekend. The present study asked the participants to report their number of "hours worked per week" for each of the current job(s) but did not specify to also include additional overtime hours. It is possible that work hours per week in the current study might not accurately reflect the *true* amount of time that participants spent on activities associated with the work role. Equally plausible is the fact hours worked per week might not accurately represent work involvement, highlighting the need to measure psychological work involvement as well. That is, it

might be important to tease apart psychological involvement with work (e.g., low vs. high career involvement) and actual time spent at work.

The results of simple mediation analyses also corroborate with the literature showing strong links between negative work-relationship balance and work satisfaction (meta-analytic evidence, Ford et al., 2007). Specifically, role balance and role overload (in opposite directions) partially mediated the effect of work stress on work satisfaction. This suggests the bi-directional nature of work-relationship balance and work satisfaction such that work satisfaction might predict and also predicted by one's level of work-relationship balance. Given that work-relationship conflict (negative work-relationship balance) is linked with lower levels of actual performance on job (e.g., Frone et al., 1997), it is possible that the link between work-relationship balance and work satisfaction found in the present study might be mediated by job performance, as well.

Findings from the within relationship domain analyses are consistent with prior literature linking frequency of conflict with partner and relationship satisfaction (target's and target's perceived partner satisfaction) with work-relationship balance (Baltes & Heydens-Gahir, 2003; Grzywacz & Marks, 2000). There were main effects of gender on role ease and role overload; and differences in gender on role overload was further qualified. Specifically, a significant interaction between gender and target's perceived partner's relationship satisfaction on role overload. Gender moderated the effects of low perceived partner's satisfaction on one's level of role overload in adulthood. Among individuals with lower target's perceived partner satisfaction, females reported higher

levels of role overload than males. However, this difference was not observed among individuals with high partner's satisfaction as perceived by the target.

The fact that both target's relationship satisfaction and target's perceived partner's relationship satisfaction predicted role balance and overload respectively, it highlights a potential future direction. Most of research in this area relies on responses of individual respondents, each representing the entire work and relationship system. Relationships represent dyadic processes, and there would be a strong need to obtain information from partners as well to, for example, validate the reports of the target participants. This would allow a departure of only using individuals as the unit of analysis to multilevel modeling techniques to take nonindependence nature of data into account. Discrepancies in reports among informants would likely reveal interesting moderating or mediating effects.

Unexpectedly, parental status positively predicted role balance and role ease at the marginal significance level. These results are inconsistent with the literature showing strong links between parental status (e.g., having child or not, number of children) and higher work-relationship conflicts (Byron, 2005; Grzywacz & Marks, 2000; Kinnunen & Mauno, 1998). In fact, in the present study, parental status positively predicted *positive* role balance and role ease at the marginal significance level. This is particularly interesting given the common hypothesis is that parental role responsibilities and demands would, in theory, lead to higher work-relationship conflicts and, hence, lower work-relationship balance. Although it should be noted that interpretation of these main effects for parental status is tentative in view of the fact that it was only marginally

significant, perhaps it is also possible that having parental responsibilities would force

one to be mindful and resourceful in maintaining a life balance, despites a higher level of

work-relationship conflicts. In fact, in their study of a random sample of middle-class

employees, Moen and colleagues reported that women *without* children reported the

highest levels of negative spillover from work into their private lives (Moen et al., 2004).

This also suggests that work-relationship balance (role balance, role ease) might not

merely reflect the *absence* of work-family conflicts.

      With respect to person variables domain, emotional dysregulation, as expected,

predicted negative role balance, but not role ease and overload. Consistent with the

literature (e.g., Bruck & Allen, 2003), there was also a positive relation between

conscientiousness and role balance (and a marginal negative relation with role overload).

Findings of the present study also replicated the link between neuroticism and work-

relationship conflicts (role overload). However, there was no association between

neuroticism and role balance or role ease. Lack of replicated effects may be attributable

to the fact that emotion dyregulation was controlled in the present study. That is, most of

the past studies have used personality factors as an indicator of the effectiveness of one's

coping and regulatory strategies (Watson, 2000; Stoeva et al., 2002), while the present

study explicitly examined unique, independent effects of both personality factors *and*

emotion dysregulation. It appears that personality disposition—linked with one's coping

strategies—might not predict above and beyond one's *actual* emotion regulation.

      As a set of more stringent analyses by including predictors from all domains

simultaneously in one model in predicting work-relationship balance in adulthood, social

support at work uniquely predicted positive role balance and ease while controlling for relational and person variable factors. In addition, when controlling for predictors from all domains, emotional dysregulation independently predicted less positive role balance and role ease. Given that past studies have shown that higher level of felt support from supervisors ameliorated work-relationship/ family conflicts (e.g., Ford et al., 2007; Fox & Dwyer, 1999), there is good reason to believe that the association between social support at work and work-relationship balance found in this study, as well as other studies, reflect in part as one's resources, coping mechanism and emotional strategies. This pattern of results highlights the potential significance of emotion regulation as a potential underlying mechanism in driving some of these effects.

Unexpectedly, time spent with partner positively predicted role ease. Prior studies have shown that spending more time in the relationship/ family domain leads to a reduced amount of time for the work life and, thus, is linked with an increased in work-relationship conflict (a less positive role balance, role ease; Baltes & Heydens-Gahir, 2003; Byron, 2005; Frone et al., 1997; Gutek et al., 1991). One possible explanation for the opposite effects on work-relationship balance observed in the present study is the differences in the operational definition of time spent in relationship/ family domain. For instance, in the study by Frone and colleagues (1997), time spent in the relationship/ family domain was operationalized as time *commitment* to relationship (and parenting) activities. In fact, time spent in relationship/ family domain was indexed by the percentage of relationship/ family tasks that participants performed. In the present study, time spent in relationship domain was, however, indexed by participant's response to the

question "how often do you spend time with partner?" Relational involvement in the present study did not differentiate between time spent on relationship demands (e.g., taking care of a partner, doing chores for a partner) and time engaged in "quality time" together as a couple. It is likely that frequency of time spent together as a couple in the present study is a marker of amount of resources and social support available in the relationship and, thus, appears to have positive effects on work-relationship balance.

Although there were strong—and consistent—main effects of gender on role ease and role overload, gender-moderating effects were not found in the present study. Similarly, models including two-way interactions of predictors *across* domains were not supported in the present study. Some of the interaction effects did, however, reach marginal significance levels, and the directions of the effects were consistent with the hypotheses. For example, some—limited tentative—support suggests that work stress might interact with age of the youngest child on role ease. Specifically, among those parentally involved with a younger child, finding indicated that individuals with lower levels of work stress experienced more positive role ease. There appears to have no difference among those who were involved with older children. In addition, high social support from co-workers and supervisors seems to buffer the negative effect of demands associated with having a child on role overload. It is possible that the sample size afforded limited power to testing more complex models including interaction terms. Therefore, gender moderation and other two-way interactions between predictors from different domains should be examined further in studies with more power.

Predictive Validity of Work-Relationship Balance

The results that role balance and role ease positively predicted one's life satisfaction at age 32 in the present study corroborate previous work on predictive validity of work-relationship balance (meta-analytic evidence, Ford et al., 2007; e.g., Carlson & Kacmar, 2000; Clarke et al., 2004; Mesmer-Magnus & Viswesvaran, 2005). Given life satisfaction was a measure of subjective well-being, the present study also included other important concurrent circumstances that were likely to correlate with one's evaluation of his or her quality of life. Indeed, as expected, life stress inversely predicted life satisfaction while subjective overall mental health status and whether or not had a romantic partner positively contributed to one's level of life satisfaction. Role balance and role ease remained to independently predict positive life satisfaction even controlling for these proximal well-being indicators. This robust finding provides initial evidence to rule out the possibility that work-relationship balance (in this case, role balance and role ease) does not have independent effect on life satisfaction when controlling for concurrent circumstances. In fact, this underscores the uniqueness of the balance construct.

Unexpectedly, work-relationship balance at age 32 did not predict physical and mental health outcomes at age 34. The strongest predictors for age 34 health outcomes were their age 32 baseline assessments, and this observed continuity was expected (and consistent with the work-relationship balance literature on health; e.g., Frone et al., 1997). It is noteworthy that mental health outcome at age 34 was also marginally predicted by age 32 physical health, suggesting the interplay between physical and mental health well-being. It was also hypothesized that less positive work-relationship balance would also

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independently contribute to less optimal health conditions, given the potential increased in psychological distress and strain that may have inimical effects on health and well-being, while controlling for baseline assessments; however, the present study did not detect this association.

One possible explanation for the lack of finding in the present study is that a more reliable set of baseline measures was used. Grzywacz (2000), using data from the National Survey of Midlife Development in the United States, found that more positive spillover from work to family (implying better balance between work and relationship domains) was linked with better health, both physically and mentally, controlling for health status at age 16. In that study, the average age of the participants was 46.33 (age range = 35-65 years), and the "baseline" health status was obtained for age 16. It is important to note that the baseline health status at age 16 was based on participants' *retrospective* reports of their physical and health status at age 16. Even for the youngest participants in their study, this would indicate asking individuals to recall their health status from nearly 20 years ago. This raises questions about the reliability of such "baseline" measures. Thus, future studies might use multiple assessments from different time points with repeated measures based on prospective data to examine the relation between health and work-relationship balance, by teasing apart the fact that health condition might be considered as a source of work-relationship balance *and* also as consequences of work-relationship balance.

Furthermore, it is possible that work-relationship conflict (less work-relationship balance) is associated with more specific chronic health conditions, as suggested by prior

studies (obesity, Grzywacz, 2000; incidence of hypertension, Frone et al., 1997; cardiovascular conditions, Shockley & Allen, 2013) as opposed to a global health functioning. Additionally, the association might be more likely to be observable at the clinical level of diagnoses (e.g., mood, anxiety disorders), as seen in the findings using data from the National Comorbidity Survey (e.g., Frone, 2000).

With respect to predictive validity on psychosocial outcomes, cross-sectional findings from the literature suggest that negative work-relationship balance predicts lower work satisfaction and relationship/ family satisfaction (e.g., Ayree et al., 1999; Ford et al., 2007). Unfortunately the age 34 assessment of the longitudinal data used in the present study focused on obtaining status-type follow-up questions, as opposed to in-depth questions related to psychosocial functioning and adjustment outcomes. Nevertheless, capitalizing on the available psychosocial status outcome data at age 34, it was hypothesized in the present study that work-relationship balance at age 32 would predict employment and relationship status at age 34. The results provided no strong evidence linking work-relationship balance at age 32 with either employment or relationship status at age 34. The strongest predictor for age 34 employment status was age 32 employment status, suggesting a strong stability across ages 32 and 34 in this sample. Role overload at age 32 slightly decreased the likelihood of being employed at age 34 by .48 times. However, this effect was only marginally significant. Prior studies have found associations between negative work-relationship balance and lower job performance (e.g., Frone et al., 1997) and job withdrawal intentions (e.g., Greenhaus et al., 2001). One possibility of the null findings in the present study is that negative work-

relationship balance might be related to individuals' withdrawal or changing job intentions, but financial circumstances (the sample was originally recruited as poverty sample) might prompt them to remain employed despite their intentions to withdraw from their employment. Future studies might also examine whether negative work-relationship balance would predict being fired from work, which is a known consequence of poor performance at work, such as frequent absenteeism (e.g., Anderson et al., 2002). It is also interesting to note that age 32 SES slightly increased the likelihood of being employed at age 34 by 2.72 times. This suggests that the nature of employment, characteristics of the job/ occupation, and one's household income might also be linked with continuity/ discontinuity in employment status. Future work might also take job security into account.

Similar to the pattern of results in predicting age 34 employment status, the strongest predictor of relationship status at age 34 was participant's relationship status at age 32. However, positive role ease independently increased the likelihood of having a romantic partner at age 34 by 2.09 times. Given this effect was only marginally significant, this provides only tentative evidence for the hypothesis that one's ease with multiple adult roles (a form of work-relationship balance) would facilitate functioning in each role. Further replication of this effect is needed.

Finally with respect to relationship stability between ages 32 and 34, the quality of relationship should forecast relationship stability/ dissolution. Indeed, relationship quality at age 32 was the independent best predictor of whether or not one was still with the same romantic partner across the 2-year period. There was no evidence implicating

work-relationship balance was linked with stability. However, it is quite plausible that positive work-relationship balance would predict higher quality in romantic functioning whereas poor work-relationship balance might be linked with poorer relationship quality (e.g., Aryee et al., 1999; Carlson & Perrewe, 1999). There is reason to believe that given work-relationship balance is linked with *changes* in relationship satisfaction and relationship quality (not assessed at age 34 in the present study) and might, therefore, indirectly affect the likelihood of relationship stability over time.

Developmental Pathways to Work-Relationship Balance

Although not typically examined as an aspect of adult competence, the present study examined the effects of age-salient close relationship quality and success in other earlier developmental tasks on work-relationship balance in adulthood from a developmental tasks framework. Results of this study provide one of the first evidence of potential developmental origins of life balance in adulthood through multiple pathways. These pathways implicate the role of quality age-salient relationships across development including parent-child relationship, peer relation, friendship, and romantic relationship. Additionally, results corroborate with the findings in the adult literature on the association between work-relationship balance and concurrent functioning and adaptation in other key aspects of adult competence.

Two sets of models were run to examine (1) the associations between significant interpersonal relationships across development and later work-relationship balance in adulthood and (2) the associations between academic achievement and peer competence in middle childhood plus adolescence and later adult life balance. Results from the

relationship pathways models indicated that the best fitting model was the model wherein early relationship functioning was mediated through romantic relationship functioning to life balance in adulthood, with additional direct effects from quality of age-salient close relationships from middle childhood and adolescence to life balance in adulthood. These results suggest that individuals with a developmental history of higher quality close relationships (parent-child, peer relations, friendship) across development are more likely to have positive life balance in adulthood, above and beyond the influence of adult romantic relationship functioning in early and later adulthood.

Results of this study provide evidence that quality of age-salient close relationships set in motion a process whereby individuals are able to successfully derive resources from the environment to function effectively in important adult roles *and* negotiate the demands of multiple adult roles simultaneously. Thus, evidence appears to support the hypothesis of cumulative effects of relational developmental history on adult life balance. Moreover, results suggest that the quality of earlier age-salient relationships in middle childhood and adolescence sets into motion that plays a unique and enduring role, even into adulthood. This also highlights multiple potential relational pathways across the lifespan on adult life balance, as opposed to only through adult interpersonal relationships.

In addition, results in the developmental analyses also corroborate findings in the concurrent analyses of the present study such that social support at work from coworkers and supervisors had strong, unique effect on positive role balance and role ease, over and above some other concurrent correlates of positive work-relationship balance in

adulthood. Likewise, time spent with romantic partner (might potentially be viewed as a form of social support in the present study) also had a positive unique effect on role ease in adulthood. Considered as a set, these social effects underscore the importance of studying the impact of social capital across different settings on work-relationship balance in adulthood. Future studies would benefit from having a strong emphasis on examining the availability of social resources to individuals as well as one's willingness to capitalize and effectively utilize these resources, and how they interplay with life balance in adulthood. Moreover, relationship history across development would, in theory, also play a key role in determining the amount of social capital available to individuals as well as in predicting how effective individuals would be in capitalizing these resources at times of needs and distress, arguably a great asset when fulfilling multiple life roles in adulthood and, subsequently, maintaining a positive life balance.

Results from the academic/ peer competence pathway models indicated some tentative evidence on the effects of academic achievement and peer competence on age 32 life balance as mediated through work competence and functioning in adulthood. Results here are tentative because the path models did not have acceptable absolute fit indices. One possible explanation for the ill-fitted models is that there was a weak relation between work functioning and life balance in adulthood. Results appear to suggest that functioning effectively in one domain of adult role (in this case, the work role) does not, as expected, have direct translation into positive life balance. In other words, this pattern of results implies that competence in adult roles is not a guarantee for positive work-relationship balance. In fact, findings of this study, especially from the set

of concurrent analyses, highlight the special role of social capital as well as one's regulatory capacity in jointly shaping and maintaining a balance among multiple domains of functioning in the lives of adults.

Although not one of the original goals of the present study, results also provide further evidence that work competence in adulthood has roots in success in earlier developmental tasks including academic achievement and social functioning in peer relations. Moreover, there was a strong association between competence in the work domain between ages 23 and 32, suggesting a fairly stable continuity spanning almost 10 years in adulthood. It is possible that the link between concurrent work functioning and life balance in adulthood would be observed if potential person variables as moderators were examined. For example, it might be the case that among those with lower work competence in adulthood, pronounced difference in life balance might be observed between those with better emotional regulatory ability as compared to those with poorer abilities. Relatedly, development of emotion regulation was not explicitly examined here in conjunction with other developmental pathways of work-relationship balance in adulthood. Future studies might examine the developmental antecedents of adult emotional regulatory capacities, as strongly implicated by the concurrent analyses, in shaping work-relationship balance in adulthood.

Limitations

This study had a number of limitations. First is the issue of limited power related to sample size and generalizability of the findings. The study focused on a high-risk nature sample (originally recruited as poverty sample), which may not generalize to other

samples of adults. In addition, attrition is a problem in any longitudinal study. Even

though drop-out control comparisons indicated that this sub sample in the present study

was representative of the full sample, it is also possible that those who did not complete

age 32 assessment are different in other unmeasured respects. It may be the case that

those who completed age 32 assessment were, as a group, with more positive work-

relationship balance so that they were able to complete the assessment.

In addition, given the longitudinal study was not originally designed to study

work-relationship balance in adulthood specifically, it was not feasible to closely

examine the impact of spillovers from one domain to another beyond relying on self-

report measures of work-relationship balance. Clearly, context and timing were also not

considered in the present study (e.g., when they entered the work force, timing of the first

child, where they were at with their career trajectories, composition of family). Much of

the work-family literature has focused almost exclusively on professional, white adults

(e.g., nurse, accountant, lawyer; Grzywacz, Arcury, Marin, Carrillo, Burke, Coates, &

Quandt, 2007) and many hypotheses of the present study were derived based on such

literature. Although every attempt was made to statistically control for occupational

prestige, it may also be the case that there are other important correlates of work-

relationship balance that were not considered that may be especially important for

different kinds of occupation such as non-professionals (e.g., flexibility of demands and

time commitment) as well as in different cultural/ ethnic backgrounds.

Finally, the usual cautions of correlational findings are in order here. Direction of

causality cannot be made. It would be important to uncover the underlying mechanisms

associated with the various relations observed in this study. This study offers broad patterns of association representing the possible interplay among the factors considered. Thus, these findings need to be replicated in a larger, more diverse sample, and closer examination of the process underlying these results is also necessary to investigate potential underlying mechanisms with explanatory processes.

Conclusions

Work-relationship balance in adulthood has significant links to concurrent functioning in adult key roles as well as links to well-being and future psychosocial adjustment outcomes. Additionally, work-relationship balance in adulthood also links to other social functioning and adjustment across development. Patterns of association observed in the present study suggest that there are numerous factors that may influence work-relationship balance in adulthood. Concurrent analyses highlight the potential significance of both social support in different settings as well as emotional regulatory ability for positive work-relationship balance in adulthood, in addition to the ongoing role that stress associated with different adult roles may have for maintaining positive work-relationship balance. Findings from the predictive validity analyses underscore the potential importance and uniqueness of the work-relationship balance for impacting individuals' subjective well-being as well as other psychosocial adjustment outcomes. Results also suggest that social capital and resources, deriving from age-salient close relationships, are cumulative across development and have the potential significance for shaping positive work-relationship balance in adulthood.

Questions about successful adaptation and competence in adulthood and the developmental roots of effectiveness in key adult roles are among the most central in developmental sciences. However, in addition to success in functioning in various key roles salient in adulthood, another important aspect of adult competence is the capacity to have positive work-relationship balance (i.e.. effectively maintain multiple adult roles simultaneously). Concurrent and predictive validations of this unique construct examined in this present study serve as basis for further understanding the elements of adult competence as well as this novel construct. The developmental results of this study suggest that quality of age-salient relationships, such as parent-child, peer relations and friendships in middle childhood and adolescence plus romantic relationship in adulthood, serves as important social resources and has important implications for future work-relationship balance in adulthood. Conclusions drawn from this study have implications for prevention/ interventions and policies aim to promote positive work-relationship balance in adulthood as well as experiences across development that may promote greater success in positive life balance in adulthood.

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Table 1

Descriptive statistics and tests of gender differences for work-relationship balance scales and major demographic variables at age 32

Variable	Full Sample		Males		Females		Gender Difference
	M	*SD*	*M*	*SD*	*M*	*SD*	*t*
Role Balance	3.63	0.75	3.66	0.70	3.61	0.80	-0.38
Role Ease	2.91	0.62	3.04	0.57	2.79	0.64	-2.68**
Role Overload	2.82	0.85	2.57	0.78	3.05	0.85	3.80**
# of job(s)	0.93	0.58	0.98	0.57	0.88	0.59	-1.04
Hours worked per week	41.22	14.69	43.51	16.15	38.90	12.75	-1.81†
Romantic partner (1=yes)	0.79	—	0.76	—	0.81	—	0.73
# of children	1.29	1.36	0.98	1.23	1.60	1.41	3.00**
Education	3.47	2.10	3.15	2.01	3.77	2.14	1.92†

Note. *SD*s were not calculated for dichotomous variables and are marked in that column with dashes. Number of children is coded based on the number of biological or other children the participant see daily or more than once a week.

† *p* <.10. **p* < .05. ***p* <.01.

Table 2

Zero-order correlations between age 32 work-relationship scales and concurrent self-report satisfaction and life stress measures

Variable	1	2	3	4	5	6
1. Role Balance	—					
2. Role Ease	.26**	—				
3. Role Overload	-.37**	-.52**	—			
4. Work Satisfaction	.42**	.28**	-.22*	—		
5. Relationship Satisfaction	.38**	.28**	-.19*	.16	—	
6. Life Satisfaction	.57**	.31**	-.29**	.34**	.36**	—
7. Life Stress	-.16*	-.18*	.14†	-.13	-.22*	-.40**

Note. Sample sizes vary (range from 99 to 164) depending on the variables because not all participants were employed or had a romantic partner at age 32.
† *p* <.10. **p* < .05. ***p* < .01.

Table 3

Zero-order correlations between age 32 work-relationship scales and coder-rated qualitative scales of adult's psychosocial functioning

Variable	1	2	3	4	5
1. Role Balance	—				
2. Role Ease	.26**	—			
3. Role Overload	-.37**	-.52**	—		
4. Work Ethic	.17*	.10	.01	—	
5. Romantic Rel Effectiveness	.36**	.06	-.07	.17*	—
6. Romantic Rel Quality	.41**	.21*	-.13	.10	.93**

Note. $N = 164$, except for Romantic Relationship Quality variable ($n = 119$). Romantic relationship quality was only rated on those participants who were in a romantic relationship for six months or longer.
† $p < .10$. *$p < .05$. **$p < .01$.

Table 4

Descriptive statistics and zero-order correlations for variables in concurrent work domain analyses at age 32

Variable	*M*	*SD*	Correlations						
			1	2	3	4	5	6	7
1. Gender	0.51	0.5	—						
2. Work Hours (per week)	41.22	14.69	-.16	—					
3. Work Stress	2.13	1.18	.07	.14	—				
4. Social Support at Work	0.00	0.74	.05	.04	-.20*	—			
5. Work Satisfaction	2.55	1.07	-.14	.00	-.18*	.25**	—		
6. Role Balance	3.63	0.75	-.03	.12	-.36**	.35**	.47**	—	
7. Role Ease	2.91	0.62	-.21**	-.11	-.33**	.21*	.30**	.26**	—
8. Role Overload	2.82	0.85	.29**	-.01	.38**	-.24**	-.31**	-.37**	-.52**

*Note. SD*s were not calculated for dichotomous variables and are marked in that column with dashes. For gender, 1 = female, 0 = male.

† *p* <.10. **p* < .05. ***p* <.01.

Table 5

Multiple regression models predicting work-relationship balance (age 32) as a function of concurrent work domain predictors

Variable	Role Balance			Role Ease			Role Overload		
	B	SE *B*	β	*B*	SE *B*	β	*B*	SE *B*	β
Intercept	3.06	.26	—	2.85	.23	—	2.72	.32	—
Gender	-0.06	.12	-.04	-0.20	.10	-.17†	0.33	.14	.20*
Work Hours	0.01	.00	.12	-0.01	.00	-.13	0.00	.01	.02
Work Stress	-0.19	.07	-.22**	0.02	.06	.03	0.18	.09	.18*
Soc Support	0.21	.08	.21*	0.17	.07	.22*	-0.16	.10	-.14
Work Satisfaction	0.26	.06	.37**	0.13	.05	.24**	-0.15	.07	-.20*
R^2		.34			.16			.18	

Note. $N = 122$. For gender, $0 =$ male, $1 =$ female. Work Hours = number of total hours worked per week. Soc Support = social support at work from co-worker and supervisor.
† $p < .10$. *$p < .05$. **$p < .01$.

Table 6

Descriptive statistics and zero-order correlations for variables in concurrent relationship domain analyses at age 32

Variable	*M*	*SD*	Correlations							
			1	2	3	4	5	6	7	8
1. Gender	0.52	—	—							
2. Time Spent with Partner	3.68	0.75	.09	—						
3. Frequency of Conflict	1.66	0.84	.00	.17†	—					
4. Rel Satisfaction (Target)	4.39	0.90	-.02	.03	-.24**	—				
5. Rel Satisfaction (Partner)	4.34	0.87	.04	.02	-.25**	.92**	—			
6. Parental Status	0.71	—	.12	.19*	.07	-.05	-.03	—		
7. Role Balance	3.70	0.72	-.07	.08	-.23*	.39**	.38**	.13	—	
8. Role Ease	2.86	0.63	-.26**	.27**	.02	.28**	.25**	.16	.32**	—
9. Role Overload	2.82	0.87	.32**	.03	.13	-.20*	-.23*	.03	-.40**	-.55**

Note. *N* = 117. *SD*s were not calculated for dichotomous variables and are marked in that column with dashes. Both relationship satisfaction variables were based on target's self-report data. Rel Satisfaction (Partner) = target's perceived partner's satisfaction with the relationship. For Parental Status, 1 = yes, 0 = no. Parental status was defined by participant's involvement with at least one child (biological or non-biological) that target saw daily or more than once a week.
† *p* <.10. *p* < .05. **p* <.01.

Table 7

Multiple regression models predicting work-relationship balance (age 32) as a function of concurrent relationship domain predictors

Variable	Role Balance			Role Ease			Role Overload		
	B	SE B	β	B	SE B	β	B	SE B	β
Intercept	2.17	.46	—	1.12	.40	—	3.34	.57	—
Gender	-.14	.12	-.10	-.36	.11	-.28**	.60	.15	.35**
Time Spent with Partner	.07	.08	.07	.21	.07	.25**	-.01	.11	-.01
Frequency of Conflict	-.13	.08	-.15†	.04	.07	.05	.09	.10	.09
Rel Satisfaction (Target)	.30	.17	.36†	.19	.15	.27	.18	.21	.19
Rel Satisfaction (Partner)	.02	.18	.02	.02	.15	.03	-.40	.22	-.40†
Parental Status	.27	.14	.17†	.20	.12	.15†	-.04	.17	-.02
R^2		.23			.25			.18	

Note. $N = 117$. For gender, 0 = male, 1 = female. Rel Satisfaction = relationship satisfaction. Both relationship satisfaction variables were based on target's self-report data. For Parental Status, 1 = yes, 0 = no.
† $p < .10$. *$p < .05$. **$p < .01$.

Table 8

Multiple regression models predicting work-relationship balance (age 32) as a function of concurrent relationship domain predictors and gender moderations

	Role Balance		Role Ease		Role Overload	
Variable	*B*	SE *B*	*B*	SE *B*	*B*	SE *B*
Intercept	3.75**	0.09	3.03**	0.08	2.55**	0.11
Gender	-0.12	0.12	-0.34**	0.11	0.57**	0.15
Time Spent with Partner	0.10	0.11	0.18	0.10	0.10	0.13
Frequency of Conflict	-0.14	0.10	-0.04	0.09	0.07	0.13
Rel Satisfaction (T)	0.12	0.27	0.06	0.23	-0.19	0.33
Rel Satisfaction (P)	0.04	0.27	0.07	0.23	0.11	0.33
G × Time Spent with P	-0.10	0.17	0.12	0.15	-0.18	0.21
G × Frequency of Conflict	0.01	0.15	0.18	0.13	0.07	0.19
G × Rel Satisfaction (T)	0.28	0.35	0.22	0.30	0.63	0.43
G × Rel Satisfaction (P)	0.13	0.36	-0.04	0.31	-0.99*	0.44
R^2	.25		.26		.24	

Note: $N = 117$. For gender, 0 = male, 1 = female. Rel Satisfaction (T) = Target's relationship satisfaction. Rel Satisfaction (P) = Target's perceived *partner*'s relationship satisfaction. G = Gender
*$p < .05$. **$p < .01$.

Table 9

Descriptive statistics and zero-order correlations for variables in person variables domain analyses at age 32

Variable	M	SD	1	2	3	4	5	6	7
						Correlations			
1. Gender	0.51	0.50	—						
2. Neuroticism	23.43	6.01	.24**	—					
3. Extroversion	23.57	5.94	-.02	-.29**	—				
4. Conscientiousness	25.44	4.36	.11	-.42**	.24**	—			
5. Emotional Dysregulation	67.24	18.20	.02	.57**	-.36**	-.40**	—		
6. Role Balance	3.63	0.75	-.03	-.48**	.31**	.40**	-.53**	—	
7. Role Ease	2.91	0.62	-.21**	-.16	.10	.03	-.20*	.26**	—
8. Role Overload	2.82	0.85	.29**	.40**	-.13	-.24**	.29**	-.37**	-.52**

*p < .05. **p <.01

Table 10

Multiple regression models predicting work-relationship balance (age 32) as a function of concurrent person variable predictors

	Role Balance			Role Ease			Role Overload		
Variable	*B*	SE *B*	β	*B*	SE *B*	β	*B*	SE *B*	β
Intercept	3.11	.57	—	3.09	.57	—	3.93	.70	—
Gender	-.04	.11	-.03	-.22	.10	-.18*	.39	.13	.23**
Neuroticism	.02	.01	-.15†	.01	.01	-.07	-.04	.01	.28**
Extroversion	.01	.01	.09	.00	.01	.04	.00	.01	.01
Conscientiousness	.03	.01	.18*	.00	.01	-.02	-.03	.02	-.13†
Emo Dysreg	-.01	.00	-.35**	.00	.00	-.12	.00	.00	.08
R^2		.36			.07			.25	

Note. $N = 157$. Emo Dysreg = Emotional dysregulation as indexed by the total score of the total DERS scale.
† $p < .10$. *$p < .05$. **$p < .01$.

Table 11

Multiple regression models predicting work-relationship balance (age 32) as a function of predictors from all domains

Variable	Role Balance			Role Ease			Role Overload		
	B	SE *B*	β	*B*	SE *B*	β	*B*	SE *B*	β
Intercept	2.46	.91	—	2.26	.88	—	4.61	1.34	—
Gender	-.11	.12	-.07	-.31	.12	-.26*	.55	.18	.32**
Work Hours	.00	.00	.04	-.01	.00	-.16	.01	.01	.11
Work Stress	-.02	.08	-.02	.07	.08	.10	.13	.12	.12
Soc Support at Work	.18	.08	.18*	.19	.08	.23*	-.18	.12	-.16
Work Satisfaction	.17	.06	.25**	.08	.06	.13	-.12	.09	-.15
Time Spent with P	.03	.08	.03	.25	.08	.30**	-.14	.11	-.12
Frequency of Conflict	-.03	.08	-.04	.01	.07	.01	.12	.11	.12
Rel Satisfaction (T)	.24	.17	.31	.19	.16	.30	.21	.24	.24
Rel Satisfaction (P)	-.15	.16	-.19	-.11	.16	-.17	-.29	.24	-.32
Parental Status	-.01	.12	-.01	.23	.12	.18†	.13	.18	.07
Neuroticism	.02	.01	-.14	-.02	.01	-.23†	-.02	.02	.12
Extroversion	.00	.01	.02	.00	.01	.00	.00	.02	-.02
Conscientiousness	.02	.02	.11	.02	.02	.12	-.03	.02	-.15
Emo Dysregulation	-.01	.01	-.23†	-.01	.01	-.31*	-.01	.01	-.10
R^2		.51			.44			.37	

Note. $N = 91$. For gender, 0 = male, 1 = female. Rel Satisfaction (T) = Target's relationship satisfaction. Rel Satisfaction (P) = Target's perceived *partner*'s relationship satisfaction. For Parental Status, 1 = yes, 0 = no. Emo Dysregulation = emotional dysregulation.
† $p < .10$. * $p < .05$. ** $p < .01$.

Table 12

Descriptive statistics and zero-order correlations for variables in predictive validity of work-relationship balance scales on life satisfaction at age 32 analysis

Variable	*M*	*SD*	Correlations									
			1	2	3	4	5	6	7	8	9	10
1. Gender	0.51	0.50	—									
2. Role Balance	3.63	0.75	-.03	—								
3. Role Ease	2.91	0.62	-.21**	.26**	—							
4. Role Overload	2.82	0.85	.29**	-.37**	-.52**	—						
5. Life Satisfaction	4.85	1.44	.01	.57**	.31**	-.29**	—					
6. SES	-0.03	0.85	.12	.10	-.05	.01	.28**	—				
7. Life Stress	8.88	7.32	.15	-.16*	-.18*	.14	-.40**	-.19*	—			
8. Have Job	0.81	—	-.07	.06	-.12	-.02	.07	.27**	-.12	—		
9. Have Partner	0.74	—	.06	.11	-.16*	.12	.25**	.31**	-.01	.07	—	
10. Physical Health	3.25	1.01	-.09	.32**	.18*	-.27**	.40**	.21**	-.18*	.12	.12	—
11. Mental Health	3.57	1.00	-.14	.50**	.25**	-.33**	.53**	.18*	-.25**	.09	.12	.51**

Note. *N* = 164. *SD*s were not calculated for dichotomous variables and are marked in that column with dashes. For gender, 0 = male, 1 = female. Have Job, 0 = no, 1 = yes. Have Partner, 0 = no, 1 = yes. All data were obtained at age 32.
† *p* <.10. **p* < .05. ***p* < .01.

Table 13

Multiple regression models predicting satisfaction with life (age 32) as a function of role balance, role ease, role overload and other covariates at age 32

Variable	Model 1			Model 2		
	B	SE *B*	β	*B*	SE *B*	β
Intercept	-.49	.95		-.34	.92	
Role Balance	1.03	.13	.54**	.67	.13	.35**
Role Ease	.48	.18	.21**	.42	.16	.18**
Role Overload	.08	.14	.05	.04	.12	.02
			Model R^2 = .34			
Gender				.28	.17	.10
SES (age 32)				.16	.11	.10
Life Stress				-.05	.01	-.24**
Have Job				-.08	.21	-.02
Have Partner				.57	.20	.18**
Physical Health				.12	.10	.08
Mental Health				.27	.10	.19**
						Model R^2 = .51

Note. N = 161. For gender, 0 = male, 1 = female. Have Job, 0 = no, 1 = yes. Have Partner, 0 = no, 1 = yes.
**$p < .01$.

Table 14

Descriptive statistics and zero-order correlations for variables in predictive validity of age 32 work-relationship balance scales on age 34 outcomes

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
						Correlations						
1. Gender	0.51	0.50	—									
2. Role Balance	3.63	0.75	-.03	—								
3. Role Ease	2.91	0.62	-.21**	.26**	—							
4. Role Overload	2.82	0.85	.29**	-.37**	-.52**	—						
5. Physical H (32y)	3.25	1.01	-.09	.32**	.18*	-.27**	—					
6. Mental H (32y)	3.57	1.00	-.14	.50**	.25**	-.33**	.51**	—				
7. Physical H (34y)	3.51	0.95	-.03	.15	.09	-.12	.62**	.34**	—			
8. Mental H (34y)	3.76	0.92	-.12	.37**	.10	-.26**	.41**	.56**	.47**	—		
9. Have job (34y)	0.76	—	-.19*	.09	-.01	-.17*	.21**	.14	.19*	.11	—	
10. Have Part. (34y)	0.75	—	.11	.08	.02	.09	.05	.10	.06	.10	.11	—
11. 32-34 Rel Stab	0.86	—	.00	.12	.09	-.03	.11	.32**	.10	.19*	-.03	—

Note. For gender, 0 = male, 1 = female. Physical H = physical health. Mental H = mental health. Have job (1 = yes). Have Part = Have romantic partner (1 = yes). 32-34 Rel Stab = relationship stability between age 32 and 34.
† *p* <.10. *p* < .05. **p* < .01.

Table 15

Multiple regression models predicting physical and mental health (age 34) as a function of age 32 role balance, role ease, role overload and age 32 baseline and other covariates

Variable	Age 34 Physical Health			Age 34 Mental Health		
	B	SE *B*	β	*B*	SE *B*	β
Intercept	1.88	.69		2.18	.69	
Role Balance	-.10	.10	-.08	.14	.10	.11
Role Ease	.02	.12	.01	-.17	.12	-.11
Role Overload	.03	.09	.02	-.07	.09	-.07
Gender	.04	.13	.02	-.11	.13	-.06
Age 32 SES	.07	.08	.06	-.04	.08	-.04
Age 32 Life Stress	-.01	.01	-.08	.00	.01	-.01
Age 32 Physical Health	.56	.07	.60**	.13	.07	.14†
Age 32 Mental Health	.03	.08	.03	.40	.08	.44**
R^2		.36			.32	

Note. N = 150.

† *p* <.10. **p* < .05. ***p* < .01.

Table 16

Logistic regression model predicting employment status at age 34 as a function of age 32 role balance, role ease, role overload and other relevant covariates

	Age 34 Employment Status		
Variable	*B*	SE *B*	*OR*
Role Balance	-.23	.43	.80
Role Ease	-.04	.53	.96
Role Overload	-.73	.45	.48†
Gender	-1.58	.73	.21*
Age 32 SES	1.00	.47	2.72*
Age 32 Employment Status	4.73	.86	113.34**
-2 Log Likelihood		78.239	
Pseudo R^2		.43	

Note. $N = 147$. For employment status, $1 =$ employed, $0 =$ unemployed.
† $p < .10$. *$p < .05$. **$p < .01$.

Table 17

Logistic regression model predicting relationship status at age 34 as a function of age 32 role balance, role ease, role overload and other relevant covariates

	Age 34 Relationship Status		
Variable	*B*	SE *B*	*OR*
Role Balance	.22	.32	1.25
Role Ease	.74	.41	2.09†
Role Overload	.44	.33	1.55
Gender	.42	.45	1.52
Age 32 SES	.37	.30	1.44
Age 32 Relationship Status	2.08	.48	8.01**
-2 Log Likelihood		134.26	
Pseudo R^2		.20	

Note. $N = 147$. For romantic relationship status, 1 = with partner, 0 = without partner.
† $p < .10$. *$p < .05$. **$p < .01$.

Table 18

Zero-order correlations between age 32 life balance composite and variables in the relationship pathway models

Variable	1	2	3	4	5	6
1. Life Balance Composite (32yr)	—					
2. Romantic Functioning (32yr)	.41**	—				
3. Rel Effectiveness (23yr)	.20*	.35**	—			
4. Friendship Security (16yr)	.27**	.34**	.26**	—		
5. Parent-Child Rel (13yr)	.04	.08	.17†	.17†	—	
6. Peer Competence (7-9yr)	.14*	.25**	.25**	.20*	.20*	—
7. Attachment Security (12/18mo)	.11	.31**	.24**	.24**	.04	.17*

† *p* <.10. **p* < .05. ***p* < .01

Table 19

Zero-order correlations between age 32 life balance composite and variables in the academic and peer competence pathway models

Variable	1	2	3	4	5	6
1. Life Balance Composite (32yr)	—					
2. Work Functioning (32yr)	.19*	—				
3. Work Competence (23yr)	.00	.24**	—			
4. Academic Achiv (16yr)	-.07	.08	.40**	—		
5. Peer Competence (16yr)	.09	.21*	.32**	.33**	—	
6. Academic Achiv (7-9 yr)	-.01	.09	.42**	.66**	.31**	—
7. Peer Competence (7-9 yr)	.08	.22**	.24**	.36**	.37**	.32**

Note. Academic Achiv = academic achievement.
*p < .05. **p < .01.

Appendix 2: Figures

Figure 1

Role overload as a function of one's gender and level of perceived partner's relationship satisfaction
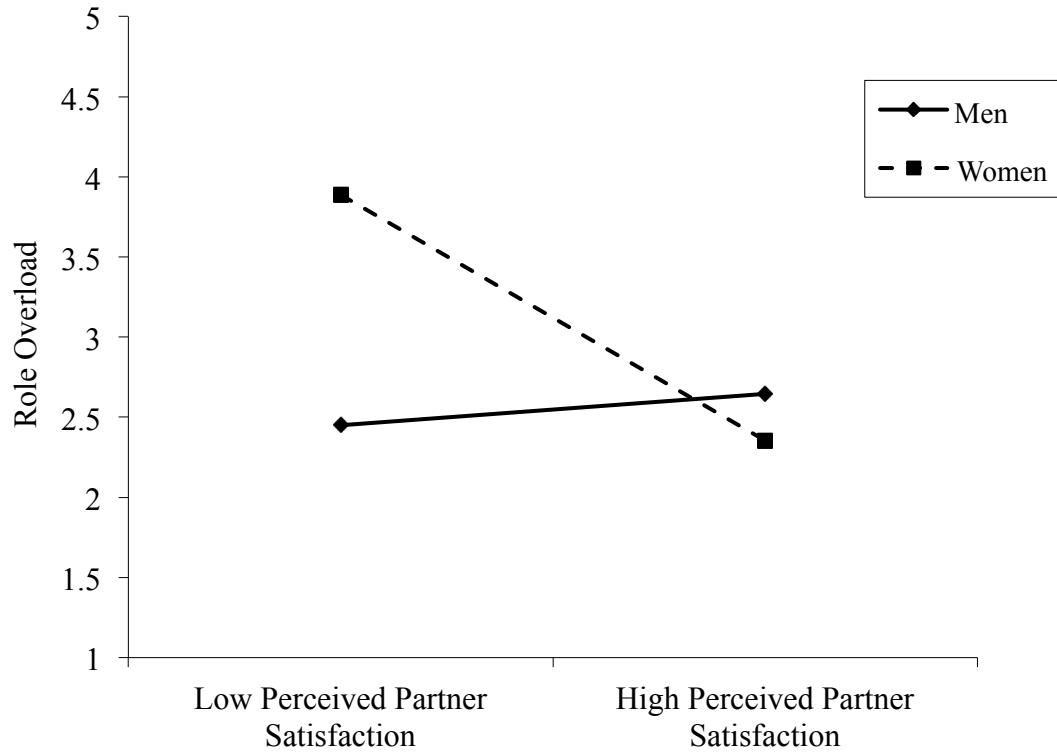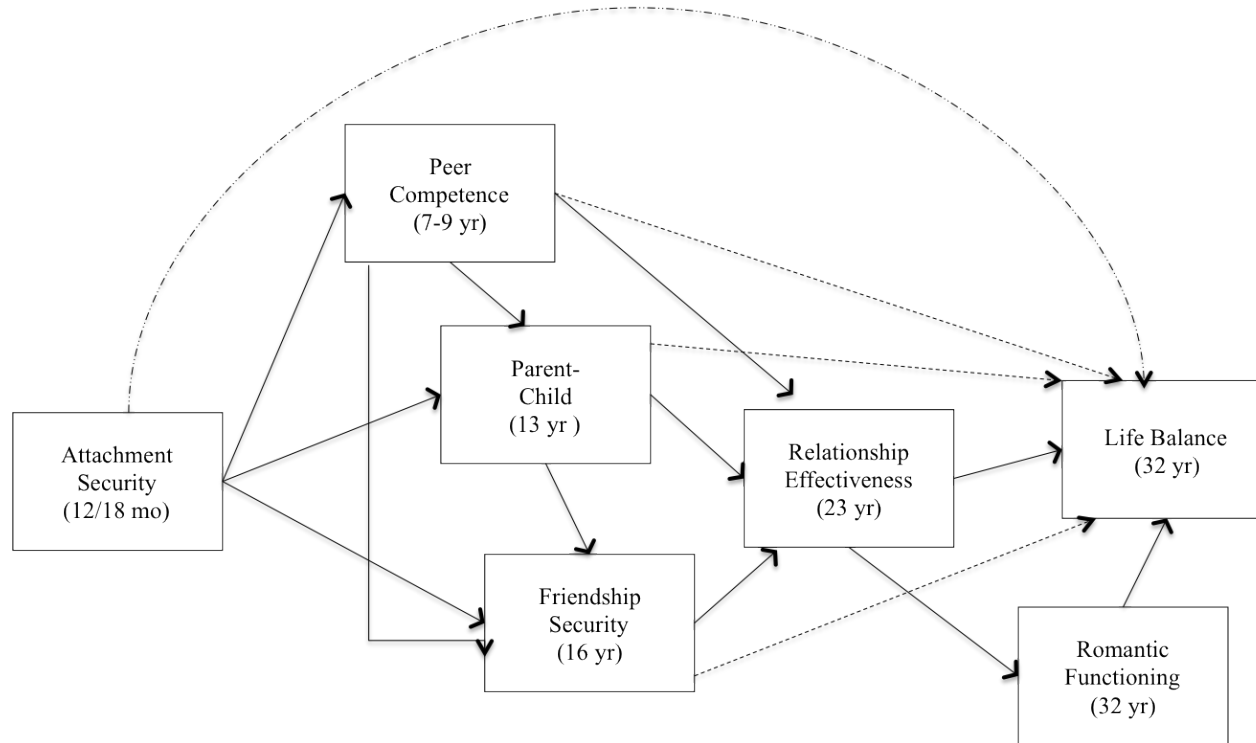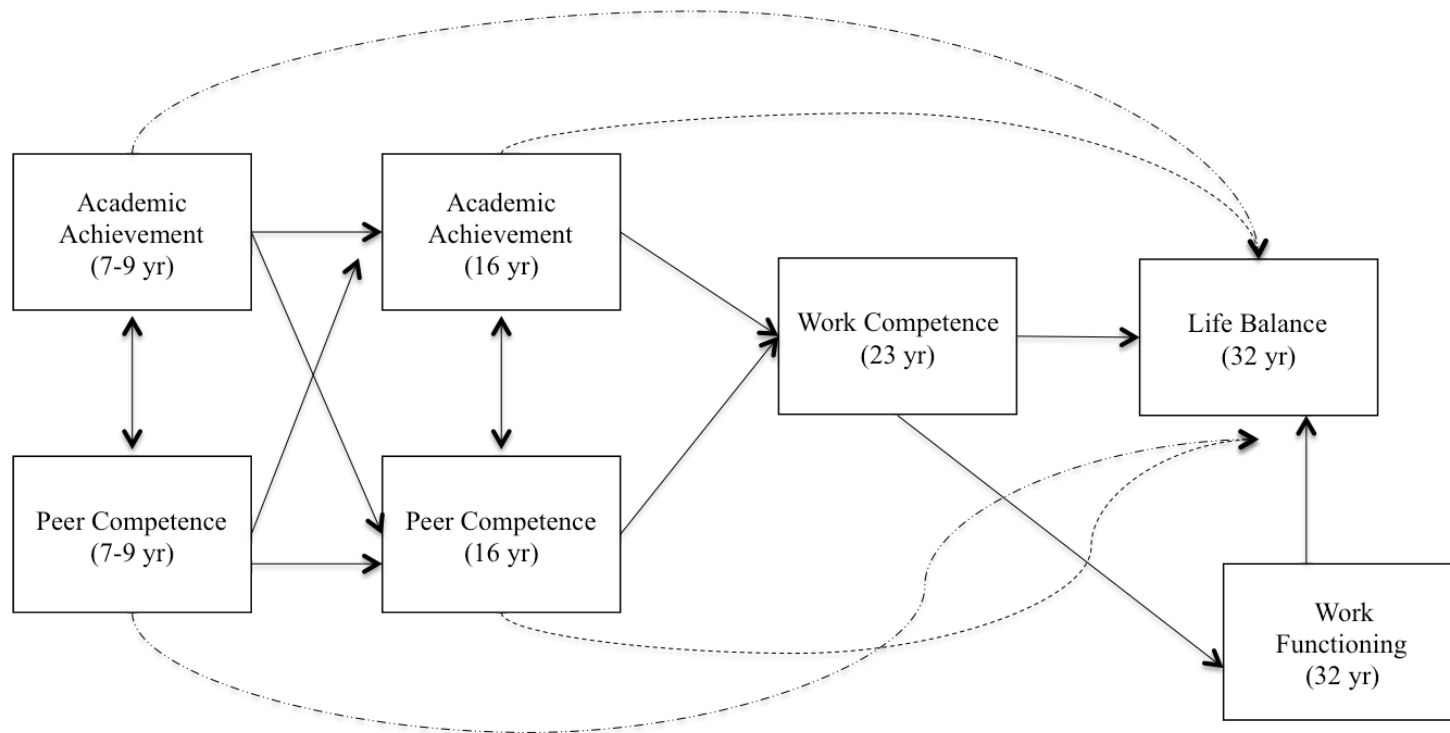
Figure 2

An illustration of the relationship pathway models tested in the developmental analysis

Note. Model 1 includes all the solid path lines. Model 2 includes all the paths from Model 1 plus three additional dotted lines representing direct effects of childhood and adolescence relationships on life balance. Model 3 includes all paths from Models 2 plus a direct effect of infant security on life balance in adulthood.
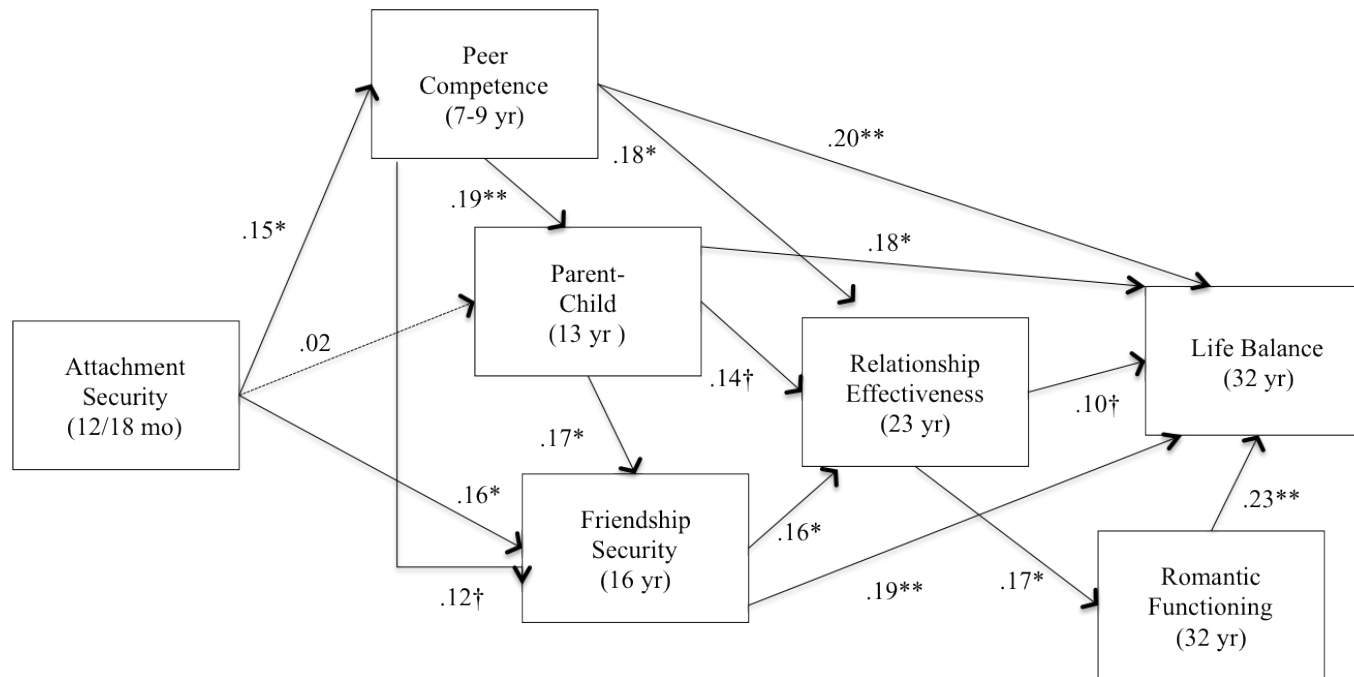
Figure 3

An illustration of the academic/ peer competence pathway models tested in the developmental analysis

Note. Model 4 includes all the solid path lines. Model 5 includes all the paths from Model 4 plus two additional dotted lines representing direct effects of academic and peer competence in adolescence on life balance. Model 6 includes all paths from Model 5 plus two direct effects of academic and peer competence in childhood on life balance.

Figure 4

Relationship pathway model examining the social functioning in age-salient close relationships across development on life balance at age 32

Note: The standardized path coefficients for the paths of Model 2, where there were direct effects of quality earlier age-salient close relationships on life balance.
† *p* <.10. **p* < .05. ***p* < .01.