

THESIS

THE DEVELOPMENT OF THE MARITAL ATTITUDES AND EXPECTATIONS
SCALE

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ABSTRACT

THE DEVELOPMENT OF THE MARITAL ATTITUDES AND EXPECTATIONS SCALE

Attitudes towards marital relationships have been examined in three ways in the literature. Studies focus on intent to marry, global positive or negative attitudes towards marriage, and expectations for what married life will be like. There are currently no instruments capable of assessing all three of these areas. The present study outlines the development and validation of the Marital Attitudes and Expectations Scale (MAES). The MAES is an instrument designed to measure intent to marry (Intent to Marry Scale, IMS), general attitudes towards marriage (General Attitudes towards Marriage Scale, GAMS), and expectations for marital relationships (Aspects of Marriage Scale, AMS). The MAES is composed of 36-items, and is on a 7-point Likert scale. The MAES is also designed to be applicable for any individual, regardless of marital status or sexual orientation. Results demonstrated internal reliability and construct validity for the instrument.

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CHAPTER I

Introduction

Marital attitudes and expectations form a cognitive schema about relationships brought about by experience (Fletcher & Thomas, 1996; as cited in Riggio & Weiser, 2008). Attitudes and expectations about relationships are important cognitions regarding perceptions of and behaviors in personal relationships (Riggio & Weiser, 2008). One may form attitudes and expectations regarding marital life through personal experiences with a partner, by observing one's parents, or by watching others negotiate the process of courtship and marriage. Highly embedded positive marriage attitudes may influence behavior and highly embedded negative marriage attitudes may also affect beliefs about relationships (Riggio & Weiser, 2008). Individuals with highly embedded positive attitudes about marriage view their own current and future marriages as happy and successful but those with highly embedded negative attitudes have less positive expectations (Riggio & Weiser, 2008).

There are a number of scales measuring overall attitudes towards marriage (Braaten & Rosén, 1998; Cohen, 1985; Gabardi & Rosén, 1991; Kinnaird & Gerrard, 1986), there are a couple of scales measuring expectations for marriage (Dunn, 1960; Slosarz, 2002), and there is one scale measuring attitudes towards same-sex marriage (Pearl & Galupo, 2007). The present study outlines the development of a new instrument assessing overall attitudes towards marriage, expectations to get married and expectations for what a married life will be like in multiple domains for marital relationships. Ultimately, the applicability of this measure should be for all individuals, regardless of

age, ethnicity, gender, marital status, sexual orientation and experiences with relationships.

Marital relationships for non-married individuals have been examined in two distinct ways in the literature. Research has focused on intent to marry (Boyer-Pennington, Pennington & Spink, 2001; Crissey, 2005; Gassanov, Nicholson & Koch-Turner, 2008; Guzzo, 2009; Kaufman, 2005; Manning, Longmore, & Giordano, 2007; McNulty & Karney, 2004; Oberlander, Agostini, Houston & Black, 2010; Plotnick, 2007; Popenoe & Whitehead, 2002; Whitton, Rhoades, Stanley & Markman, 2008; Willoughby & Carroll, 2010), as well as, on expectations regarding one's role in a marital relationship (Botkin, Weeks & Morris, 2000; Dunn, 1960; Erchull, Liss, Axelson, Staebell & Askari, 2010; Kaufman, 2005; Riggio & Weiser, 2008; Slosarz, 2002; Thorn & Gilbert, 1998; Waller & McLanahan, 2005; Wright, Simmons & Campbell, 2007).

Intent to Marry

Research has shown that most individuals expect to get married (Boyer-Pennington, Pennington & Spink, 2001; Kaufman, 2005; Popenoe & Whitehead, 2002; Willoughby & Carroll, 2010). Studies also show that there are many factors which influence the choice to get married, such as age (Gassanov, Nicholson, & Koch-Turner, 2008; Manning, Longmore, & Giordano, 2007; Willoughby & Carroll, 2010) and life events (Boyer-Pennington, Pennington, & Spink, 2001; Miles & Servaty-Seib, 2010; Riggio & Weiser, 2008; Tasker, 1992; Whitton, Rhoades, Stanley & Markman, 2008).

Age has significant influence on one's expectation to marry. Most adolescents expect to marry in the future (Manning, Longmore, & Giordano, 2007) and older adolescents' expectations to get married increase by age (Gassanov, Nicholson & Koch-

Turner, 2008). As young adults enter emerging adulthood (Arnett, 2000), they form new norms regarding coupling behavior (Willoughby & Carroll, 2010). Emerging adults see marriage as a highly valued and anticipated life goal (Carroll et al., 2007; Kaufman, 2005). Recent studies show that on average, emerging adults identify 25 as the ideal age for marriage (Carroll et al., 2007; Plotnick, 2007).

Ethnicity also appears to play a role in expectations to marry. African-American adolescents perceive that they are less likely to get married than Caucasian adolescents (Crissey, 2005; Gassanov, Nicholson & Koch-Turner, 2008) and African-American adolescents perceive that they will get married later than Caucasian adolescents (Plotnick, 2007). One study has shown that Hispanic youth reported more certainty that they expect to get married than Caucasian youth (Gassanov et al., 2008), although another study found that Mexican American adolescents did not differ from White adolescents in terms of expectations to get married (Crissey, 2005). In comparison to White adolescents, Black and Hispanic individuals are also more likely to report intent to marry but less likely to make the transition to marrying legally (Guzzo, 2009). As for Asian American and Native American adolescents, they believe they will get married later than White, non-Hispanic adolescents (Plotnick, 2007).

In regards to sexual orientation, research has just started addressing the attitudes and expectations of same-sex couples regarding marital relationships. Though same-sex couples have the right to marry in ten countries and eight states within the United States, there are government laws which allow for civil unions or other alternatives to marriage (Leiblum, 2004). Due to the changing political climate, there is a need to better understand marital attitudes and expectations for same-sex couples (Shurts, 2008).

A study by Galupo and Pearl (2007) indicates that sexual minorities report more positive attitudes towards same-sex marriage than heterosexual individuals. Research on this area, however, while telling us that marriage is favorable, does little to tell us about intent to marry or expectations of what a marital relationship would look like for same-sex couples. What little we know, indicates that gay men, lesbian women, heterosexual men and women all have similar attitudes towards life partnerships (Kline et al., 2008). Kline et al. (2008) found that the idea of a life partner, the pursuit of psychological and physical intimacy, and the importance of external support from family or other social sources were all rated more important than the ability to marry legally for a sample of 2482 individuals (238 heterosexual men, 831 gay men, 541 heterosexual women, and 145 lesbian women) that they surveyed.

Higher religiosity is also associated with greater expectations to get married (Manning, Longmore & Giordano, 2007). For young adults, high religiosity was positively associated to agreeing that marriage is an important goal and marriage is a lifetime relationship (Willoughby & Carroll, 2010). Certain cultural values within a religion may emphasize the importance of getting married for some individuals more than others.

Divorce is the dissolution of a marital relationship; often, these relationships might end in conflict. One might expect that exposure to divorce in one's family of origin might affect an individual's desire to marry. Adult children of divorce demonstrated lower commitment to marriage (Miles & Servaty-Seib, 2010; Tasker, 1992) and had more favorable attitudes towards divorce than adults from intact families (Miles & Servaty-Seib, 2010). Individuals whose parents had divorced have lower expectations for

relationship success and have more negative attitudes towards marriage (Riggio & Weiser, 2008). Some studies have indicated that this is not always the case. One study indicated it is only women, not men, whose parents had divorced that demonstrate lower relationship commitment and less confidence that a relationship would last (Whitton, Rhoades, Stanley & Markman, 2008). Another study found that adults, regardless of whether or not their parents stayed together, had a divorce, or had multiple divorces, expected to get married and were more optimistic about their marriage lasting than other peoples' marriages (Boyer-Pennington, Pennington & Spink, 2001).

Cohabitation has also been found to effect one's expectations for marriage. Cohabitation has been found to be positively associated with expectations to get married (Bumpass, Sweet & Cherlin, 1991; Gassanov, Nicholson & Koch-Turner, 2008; Guzzo, 2009). Although it is not perceived to be an alternative to marriage. Many adolescents believe cohabitation is part of their life paths, but do not think it substitutes for marriage (Manning, Longmore & Giordano, 2007). Cohabiting individuals expect to marry their partners, but are highly concerned with the stability of their cohabitating relationship, indicating a lower level of certainty about the relationship than married individuals (Bumpass et al., 1991). There is also a possibility that cohabitation is associated with a higher risk for marital dissolution (DeMaris & Rao, 1992). What this means for marital expectations is unclear. DeMaris and Rao (1992) also point out that cohabitation is historically regarded as a nontraditional lifestyle and therefore might attract individuals who are more prone to having unstable long-term relationships. If it is true that cohabitation attracts individuals who are more prone to having unstable relationships, it makes sense that the same individuals might have more negative attitudes towards marital

relationships with less intent to marry and less expectations regarding length of a marital relationship. There are currently very few studies indicating that cohabitating persons have fewer positive expectations for marriage (e.g., Bumpass et al., 1991). Divorce also effects the perception of cohabitation. Individuals from divorced families preferred cohabitation over marriage, and were more likely to say that they did not want to get married in comparison to adults from intact families (Tasker, 1992). Religiosity was also negatively associated with cohabitation (Willoughby & Carroll, 2010).

Attitudes and Expectations of the Married Life

Research on marital relationships has examined the role of gender, age, and experience with divorce and cohabitation in effecting one's attitudes and expectations toward marriage. In a study examining marriage role expectations in female students from 1961 to 1996, women expected more egalitarian than traditional roles within the domains of marital authority, homemaking, child care, personal characteristics, social participation, education, and employment and support (Botkin, Weeks and Morris, 2000). Males with higher levels of expressiveness and more liberal ideals had higher expectations for role sharing in a marriage in comparison to males with lower levels of expressiveness and more conservative ideals (Thorn & Gilbert, 1998). Despite the research indicating there is an expectation for egalitarian roles in marital relationship (Botkin et al., 2000; Thorn & Gilbert, 1998), an expectation for egalitarian roles is not synonymous with the practice in a marriage. An unequal division of labor may be anticipated, though not desired, by young adults thinking of marital relationships (Erchull, Liss, Axelson, Staebell & Askari, 2010). In terms of division of chores between heterosexual partners, men with more liberal attitudes predicted expecting equal

involvement in tasks; however, women allocated more household and child-rearing chores to themselves (Erchull et al., 2010).

Not only does gender impact the expectations for role sharing in marriage, but it also impacts the decision to marry. Kaufman (2005) indicates that women with more egalitarian or liberal attitudes are significantly less likely to expect to marry than women with more traditional attitudes, and if they do expect to marry, it's at a significantly later age than traditionally-minded women. In a similar vein, many women with more egalitarian attitudes don't expect to have children, or they desire to have fewer children (Kaufman, 2005). Men with more egalitarian or more traditional attitudes did not show differences relative to one another in expectations to marry nor in desire to have children (Kaufman, 2005).

Little research has focused on expectations specific for domains such as finances or physical intimacy in a marital relationship. One study found women's sexual expectations correlated negatively to the items of "jointly raising children" and "happiness from having children", while men's sexual expectations correlated negatively with the item indicating satisfaction with the "idea of mutual love" (Slosarz, 2002). More negative attitudes towards marriage are related to more negativity regarding intimacy, companionship and sexuality, fewer feelings of commitment, less desire for maintaining the relationship, greater desirability for alternative relationships and more conflict (Riggio & Weiser, 2008).

Age is also a factor involved in the formation of the kinds of expectations one has for a marital relationship. Dunn (1960) discovered that adolescents favored more egalitarian than traditional roles in child-rearing, personal characteristics (e.g.,

personality and social skills) and social participation (e.g., participation in religious, political, or civic affairs). Wright, Simmons, and Campbell (2007) found that a group of young adults, with an average age of 20, hold more idealized expectations of marriage than a group of adults with an average age of 32. Young adults also believe partners agree with each other on most issues in successful relationships (Wright, et al., 2007). While the research on age effects has been more focused on intent to marry (Carroll et al., 2007; Gassanov, Nicholson & Koch-Turner, 2008; Kaufman, 2005; Manning, Longmore, & Giordano, 2007; Plotnick, 2007) and expectations for egalitarian roles (Dunn, 1960; Wright et al., 2007), Slosarz (2002) examined a few other domains for marital relationships. For adults in their early 30's, sexual expectations for marriage (e.g., "normalized sexual life" or "exclusive sexual rights to partner") correlated negatively with items like "jointly raising children" and "happiness from having children" (Slosarz, 2002). For adults in their late 30's, sexual expectations for marriage correlated positively with items like "conceiving children", "sharing a common ideology", and "having a comfortable place to live" (Slosarz, 2002).

There are other life experiences, such as divorce, which may influence the attitudes and expectations one has for a marital relationship. For example, adult children of divorce have more negative attitudes towards marriage as an institution and are more opposed to the idea of a long-lasting, healthy marriage (Amato & DeBoer, 2001; Gabardi & Rosén, 1991; Gabardi & Rosén, 1992; Johnston & Thomas, 1996; Riggio & Weiser, 2008). Divorce may affect the degree to which one holds expectations for marriage. Individuals from intact homes had a higher degree of positive expectations for marriage than individuals from single divorce or multiple divorce families (Boyer-Pennington,

Pennington, & Spink, 2001). It has also been suggested that fear of divorce deters couples with children from getting married (Gibson-Davis, Edin & McLanahan, 2005; Waller & McLanahan, 2005; Waller & Peters, 2008). Johnston and Thomas (1996) found that many children of divorce have an overall lack of trust in their romantic partners and expected their marriages to fail. Similarly Gabardi and Rosén (1991; 1992) revealed that students from divorced families had significant intimacy issues as demonstrated by their number of sexual partners and attitudes towards marriage. Overall, it is clear that experiencing divorce has negative effects on one's expectations for marriage.

Measures for Examining Marital Relationships

Research on marital relationships has primarily relied on scales of marital adjustment, such as the Locke-Wallace Short Marital Adjustment Scale (Cohen, 1985) and the Spanier's Dyadic Adjustment Scale (Cohen, 1985), for heterosexual married or committed couples (Crowell, Treboux, & Brockmeyer, 2009; McNulty & Karney, 2004). Other scales, such as the Marriage Role Expectation Inventory (Dunn, 1960), assess the type of roles one might have in a married relationship based on traditional or egalitarian stereotypes. A third group of scales assess overall positive or negative attitudes towards marriage, such as the Attitudes Towards Marriage Scale (Kinnaird & Gerrard, 1986) and the Marital Attitudes Scale (Braaten & Rosén, 1998), and have been used in research on divorce outcomes (Boyer-Pennington, Pennington, & Spink, 2001; Gabardi & Rosén, 1991; Gabardi & Rosén, 1992; Segrin, Taylor & Altman, 2005; Yu & Adler-Baeder, 2007).

Measuring intent to marry. Measures for expectations to get married have varied in the research on marital relationships. Some studies have used a few of the items

from existing scales such as the Attitudes Towards Marriage Scale, to indicate an individual's intent to marry (Boyer-Pennington, Pennington & Spink, 2001). Other studies have relied on asking questions about expectations to marry on a Likert scale, where participants would indicate the degree to which they would agree with a statement such as "I would like to be married now" (Crissey, 2005; Manning, Longmore, & Giordano, 2007; McNulty & Karney, 2004; Oberlander, Agostini, Houston & Black, 2010; Riggio & Weiser, 2008; Willoughby & Carroll, 2010). Some studies rely on an individual's numerical response to questions, such as, "What is the percent chance you'll be married in the next five years?" (Gassanov, Nicholson & Koch-Turner, 2008; Plotnick, 2007). There are currently no scales incorporating intent to marry.

Measuring attitudes about marital relationships. The Relationship Belief Inventory (Eidelson & Epstein, 1982) was developed to assess beliefs about marital relationships that seemed to cause the most marital difficulties. Using the input of marital therapists, Eidelson and Epstein (1982) ultimately arrived at a five-factor model for dysfunctional relationship beliefs (disagreement is destructive, mindreading is expected, partners cannot change, sexual perfectionism, and the sexes are different). Each subscale consists of 8 items and is graded on a 6-point Likert scale, indicating the degree of agreeableness to a statement such as "Men and women need the same basic things out of a relationship," an example from The Sexes Are Different subscale (Eidelson & Epstein, 1982). Eidelson and Epstein reported a Cronbach alpha ranging from .72 to .81 for the various subscales.

The Locke-Wallace Short Marital Adjustment Scale (Cohen, 1985) was developed for assessing adjustment of currently married couples. It is a shorter form of

the Locke Marital Adjustment Test and is considered to be easier to administer (Cohen, 1985). Researchers reported a split-half reliability of .90. The scale was developed to indicate the probability of the level of adjustment for two married individuals. Thus, its applicability is limited to individuals already in a marital relationship and does not indicate marital expectations for non-married individuals.

Spanier's Dyadic Adjustment Scale (SDAS) (Cohen, 1985) was made to address criticisms of the Locke Marital Adjustment Scale, which was that it would assume a score from one individual represents adjustment for both individuals. The SDAS has four subscales: consensus, satisfaction, cohesion and affectional expression. Cohen (1985) reported a reliability of .90, .94, .86, and a .73 respectively for each of the subscales; reliability for the entire scale was a .96. The SDAS was designed to focus on individuals who are married or already cohabitating with their partner (Cohen, 1985). Similarly to the Locke-Wallace Marital Adjustment Scale, the SDAS is not applicable for non-married individuals. And it is also not applicable for assessing one's overall favorableness towards marriage or one's expectations for married life.

The Attitudes Towards Marriage Scale (Kinnaird & Gerrard, 1986) assesses overall favorable and negative attitudes towards marriage on a 5-point Likert scale. Kinnaird and Gerrard's (1986) scale is a modification of a previous scale by Wallin (1954). The scale consists of 14 items and assesses global attitudes towards marriage, for example, "I believe marriage is one of the most important things in life", as well as questions about one's stance towards the idea of marriage, "How difficult would it be for you to adjust to married life" (Kinnaird & Gerrard, 1986). Kinnaird and Gerrard (1986) indicated that the scale has a Cronbach alpha of .88, and a test-retest reliability of .87.

While the scale assessed overall attitudes towards marriage, the scale does not examine expectations for the different aspects of a marital relationship.

The Attitudes Toward Marriage Scale developed by Gabardi and Rosén (1991) is an 8-item instrument designed to examine idealized beliefs (e.g., “Loving each other is enough to keep the marriage together”) and personal doubts (e.g., “If I get married, I have little confidence that my marriage will be a success”). Gabardi and Rosén (1992) reported the standardized alpha for the Doubt scale was .69, .59 for the Idealized beliefs scale, and .68 for the entire scale. The scale does examine global idealized beliefs and doubts one has for marriage, and it is helpful in determining one’s overall attitude towards marriage. The Attitudes Toward Marriage Scale does not, however, explore expectations for different aspects of a marital relationship.

The Marital Attitudes Scale (MAS) developed by Braaten and Rosén (1998) was constructed to assess one’s subjective opinion of the institution of heterosexual marriage. The MAS was different from its predecessors; it was developed to assess the attitudes of both married and non-married individuals. The scale is composed of 6 items regarding feelings towards one’s current or future marriage, and the other 17 items examine feelings towards the institution of marriage as a whole. Braaten and Rosén (1998) indicated an internal reliability of .82. Bassett, Braaten and Rosén (1999) reported a test-retest reliability of .85. The scale focuses on personal and global levels of favorableness towards marriage. However, the MAS does not explore attitudes for different aspects of marriage.

The Attitudes Towards Same-Sex Marriage Scale developed by Pearl and Galupo (2007) consists of 17 items measuring general attitudes towards same-sex marriage. On a

5-point Likert scale, participants are asked to indicate their level of agreement with items such as “Same-sex marriage ensures equal rights for all relationships regardless of sexual orientation”. Higher scores indicate more positive attitudes towards same-sex marriage. Galupo and Pearl (2007) indicated a high internal consistency with a coefficient alpha of .89. Overall, the study conducted by Galupo and Pearl (2007) indicated that this scale is a psychometrically robust measure suitable for sexual minority populations.

Measuring expectations for marital relationships. The Marriage Role Expectation Inventory (MREI) is composed of 71 statements examining expectations relating to marriage roles in traditional and egalitarian terms (Dunn, 1960). The MREI is made of seven subscales assessing authority, homemaking, child care, personal characteristics, social participation, education, and employment and support. Dunn (1960) reported a split-half reliability of .95. The MREI looks at only a specific part of what marital relationships should be like. It looks at one’s expectations for a traditional or an egalitarian role in marriage. Additionally, some items in the scale may have little significance for individuals deciding on marriage today. The idea of “homemaking” for women (Dunn, 1960) is no longer applicable with “emerging adults” (Arnett, 2000) in pursuit of secondary education.

A study done in Poland used a list of 40 statements as a List of Expectations from Marriage (Slosarz, 2002). The List of Expectations from Marriage was originally developed in Polish by researcher, Braun-Galkowska in 1980. The sample used for the study was 200 part-time, married students ranging from 25 to 40 years old at several universities in Poland, the reported Cronbach alpha for the sample was a .89 (Slosarz, 2002). The students were asked to report on a 3-point scale the level to which they had

the expectations for items such as “mutual trust” and “satisfaction from sexual life”. The list was ultimately divided into five types of expectations: emotional, partnership, protection, sexual and material. However, there were no reported psychometric evaluations of the factor structure.

Current Study

The current study focuses on creating a scale capable of assessing intent for marriage, attitudes towards marriage, and expectations for marital relationships. None of the existing measures are able to measure these three areas. Of the measures that exist for assessing attitudes towards marriage (Cohen, 1985; Kinnaird & Gerrard, 1986; Gabardi & Rosén, 1991; Braaten & Rosén, 1998; Pearl & Galupo, 2007) or expectations for marriage (Dunn, 1960; Slosarz, 2002), there are limitations with each of these measures. As mentioned above, some of these measures are limited to certain kinds of marital relationships, for example, married couples (Cohen, 1985). Some instruments work under the assumption that all individuals have the right to marry (Cohen, 1985; Kinnaird & Gerrard, 1986), which isn't necessarily the case for same-sex couples. Some measures have never been factor analyzed and the psychometric properties of the scales are unexamined (Braaten & Rosén, 1998; Dunn, 1960; Gabardi & Rosén, 1991; Slosarz, 2002). One measure is limited to a specific issue, such as, attitudes towards same-sex marriage (e.g., Pearl & Galupo, 2007). One measure is broad in focus and assesses both intent to marry and attitudes towards marriage as one construct (Kinnaird & Gerrard, 1986). Thus, no current scale is capable of assessing these three realms of assessing intent for marriage, attitudes towards marriage, and expectations for martial relationships. These areas are also theoretically and psychometrically unexplored. As such, there is

little evidence to suggest that these three realms should be explored as one large construct.

Because of this, there are clear limitations in our knowledge of attitudes, beliefs, behaviors, and expectations for marital relationships. Riggio and Weiser (2008) indicate that there are relationships between marital attitudes, marital expectations, beliefs and behaviors. These relationships are yet to be explored because of the lack of measures in this area. It would be helpful to have theories for understanding marital, or committed relationships, and to have a conceptualization of how childhood events may impact expectations for committed relationships. Currently, the field is limited in its ability to measure the constructs necessary for developing such theories.

Additionally, the current scales are limited in applicability to general populations. Some scales are more applicable for married individuals, such as the Spanier's Dyadic Adjustment Scale (Cohen, 1985), and some scales are more applicable for looking at expectations based on traditional values, such as the Marriage Role Expectation Inventory (Dunn, 1960). What is needed is a scale capable of assessing individuals' attitudes towards marriage regardless of marital status and sexual orientation. By far, most instruments were designed for specific populations or concerns, such as, married couples or attitudes towards same-sex marriage as a political issue. Currently, what is needed is a scale applicable to all individuals, including sexual minorities and same-sex couples. By creating a comprehensive scale, the field could better examine the formation and dissolution of marital relationships.

In practical terms, the scale could allow us to understand the value of certain expectations and attitudes for individuals who are about to enter or leave a marital

relationship. It could be used in couples therapy or family therapy as an objective assessment tool. Research on divorce indicates experiencing divorce as a child may affect one's interpersonal relationships. Some common interpersonal issues that have been studied are trust (Bolgar, Zweig-Frank & Paris, 1995; Johnston & Thomas, 1996), and control and submission (Bolgar et al., 1995). This scale could be used as an objective measure able to understand expectations for the relationship and how that may affect issues in interpersonal relationships caused by childhood events.

Research has indicated there is an association between negative attitudes towards marriage and risk-taking behaviors such as sexual activity, binge drinking and marijuana use (Carroll et al., 2007; Willoughby & Dworkin, 2009). Students from divorced families had a higher number of sexual partners; desire increased by a function of the number of years since the divorce – the fewer the years, the higher the desire (Gabardi & Rosén, 1992). Adult children of divorce may fulfill their emotional needs by engaging in unhealthy sexual behavior (Amato, 1996). Thus, in practical terms, using a more comprehensive scale could assist in understanding the role of certain life events and developing interventions for individuals who were negatively affected by a life event, such as divorce.

CHAPTER II

Method

Participants

There were 516 participants (189 males, 325 females, 2 unknown) ranging in age from 17 to 41 ($M = 19.57$, $SD = 2.27$). 83.1% of the sample self-identified as Caucasian/White, 6.2% as Latino or Hispanic, and 3.9% as African American or Black. 6.8% of the sample self-identified as American Indian/Native American, Asian American, Hawaiian/Pacific Islander, Middle Eastern American or Other. 95.7% of the sample self-identified as heterosexual, or sexually interested in the opposite sex. 33.3% of the sample indicated that they were currently in a relationship; 1.4% indicated they were married. 2.1% indicated that they have children. Lastly, 28.5% of the sample indicated that their biological parents were currently divorced. All of the participants volunteered to participate in the study for course credit in an introductory psychology course.

Construction of the Marital Attitudes and Expectations Scale

The development of the Marital Attitudes and Expectations Scale followed the process outlined by Worthington and Whittaker (2006). First, the construct was defined clearly and concretely through theory and research. Second, a pool of items was then written to reflect intent to marry, attitudes towards marriage, and expectations for different domains in marriage. These items were written using clear, concise and readable language. They were then reviewed by multiple groups of experts for their quality. Worthington and Whitaker recommend taking particular note on the items' clarity, conciseness, reading level, face validity, content validity, and redundancy. Fourth, the

items were then administered to a sample. Though Worthington and Whittaker advocate that it is best to administer the new items without additional measures they also recommend that if one does use additional measures, to administer the new items first in order to prevent contamination on responses to the new items. Fifth, the factor structure of the new scale was analyzed using exploratory factor analysis (EFA) then confirmatory factor analysis (CFA).

Procedure

Initially, 87 potential items were developed: 9 assessed intent to marry, 18 for general attitudes towards marriage and 60 for aspects of marriage. Each item was rated on a 7-point (from 0-6) Likert scale, ranging from strongly disagree to strongly agree. The items were administered to a large sample of introductory psychology students through Qualtrics, an online service designed for collecting research data. Participants were guided to a survey link through a posting on the psychology department's research pool. The participants were given informed consent and told that the study concerned marital attitudes and expectations. They were also asked to complete a battery of measures consisting of 87 potential items for the new instrument, three other measures (MAS, ATMS, LOTR), and demographic questions. All new items were randomized and given first to participants, prior to the other measures which are outlined below.

Marital Attitudes Scale. In order to assess convergent validity for the new measure, marital attitudes were assessed by the Marital Attitudes Scale (MAS) developed by Braaten and Rosén (1998). This scale examines individuals' subjective opinions of heterosexual marriage. The MAS consists of 23 items and looks specifically at perceptions of the self as well as perceptions of marriage as a whole. It has been used

significantly in research correlating marital attitudes with divorce outcomes and interpersonal outcomes (for example, Segrin, Taylor & Altman, 2005; Yu & Adler-Baeder, 2007). It was expected that the new instrument would correlate highly with the MAS as a demonstration of good convergent validity.

Attitudes towards Marriage Scale. Marital attitudes was also assessed using the Attitudes Towards Marriage Scale (ATMS) by Kinnaird and Gerrard (1986). The ATMS assesses overall positive and negative attitudes towards marriage. The scale has also been used in research examining general attitudes towards marriage (for example, Boyer-Pennington, Pennington & Spink, 2001; Gassanov, Nicholson & Koch-Turner, 2008). Similarly to the MAS, it was expected that the new instrument would correlate highly to the ATMS as further validation of good convergent validity.

Life Orientation Test – Revised. The Life Orientation Test – Revised (LOTR) by Scheier, Carver and Bridges (1994) assesses dispositional optimism. The LOTR consists of ten items, four of which are not included when calculating a final score of dispositional optimism for participants. Scheier et al. reported a Cronbach alpha of .78 and a test-retest reliability of .79 over the course of 28 months. It was expected that the new measure would establish good discriminant validity by correlating moderately to the LOTR. The two measures should be moderately correlated because both the new instrument and the LOTR assess positive attitudes. However, the two measures assess different constructs or types of positive attitudes which will limit the correlation.

Demographic questions. Demographic questions were given last in the study. Participants were asked to report their age, gender, ethnicity, sexual orientation, marital and relationship status, cohabitation status, number of children, and parent relationship

status. Lastly, the participants were sent to a debriefing form and were thanked for their participation.

CHAPTER III

Results

Marital Attitudes and Expectations Scale

The Marital Attitudes and Expectations Scale (MAES) was analyzed as three separate scales measuring intent to marry, general favorableness towards marriage, and expectations for different aspects of marriage. The MAES was divided into three separate scales for statistical analyses because of the lack of a sufficient sample size. There is also no empirical support suggesting that intent to marry, attitudes towards marriage and expectations for marriage could be expected to factor together. Thus, the MAES was developed as three separate measures, and a hierarchical model was not suitable at this time. There are 9 items in the Intent to Marry Scale (IMS; see Table 1 for the means, standard deviations and wording of each of these items), 18 items in the General Attitudes towards Marriage scale (GAMS; see Table 2), and 60 items in the Aspects of Marriage Scale (AMS; see Table 3). The process of constructing these scales, the items and psychometric properties of each of these scales are described below.

Intent to Marry Scale (IMS)

Exploratory factor analysis. An exploratory factor analysis was conducted in order to follow the steps of scale construction outlined by Worthington and Whittaker (2006), and to explore concepts related to marital relationships that have been previously unexplored. A maximum likelihood method with an oblique rotation was used to assess the initial factor structure of the items for the IMS. Intent to marry has not been previously examined in the literature, thus correlations among items was used to determine whether or not there should be an oblique or orthogonal rotation. Correlations

among the IMS items ranged from $r=0.48$ ($p<.001$) to $r=0.86$ ($p<.001$). Because correlations ranged from moderate to strong, an oblique rotation was used in the case that there was a 2-factor solution. Missing data was replaced using maximum likelihood estimation with robust standard errors.

The IMS items were written to reflect a single factor of positive intent towards marriage. Factors were retained based on whether or not the factor had an eigenvalue greater than 1 (Kaiser, 1958) and if it was indicated by the scree plot that the remaining eigenvalues were starting to level off (Cattell, 1966). This analysis revealed one major factor with an eigenvalue greater than 1. Overall, these IMS items accounted for 67.98% of the variance. Table 4 shows each item's factor loading; all items loaded strongly onto one factor. Items were deleted from the IMS based on the recommendations by Tabachnick and Fidell (2001), who stated that 0.32 should be the minimum factor loading of an item. Tabachnick and Fidell also recommend that a factor should not be retained if it has fewer than three variables.

In the IMS, all the items loaded strongly onto one factor. Thus, items were deleted based on their content. It was determined that items 4, 5 and 9 had high factor loadings and that the other items were repetitive of the content being captured by these three items.

Confirmatory factor analysis. Confirmatory factor analysis was then used to assess how well the theorized factor structure fit with the data. Hu and Bentler (1999) offer some recommendations for assessing good model fit. Specifically, they recommend the Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) is greater than or equal to 0.95. Hu and Bentler also suggest that the standardized root mean squared residual (SRMR) is less than or equal to 0.08 and the root mean squared error of approximation

(RMSEA) is less than or equal to 0.06. Three items compose the final one factor version of the IMS. The model appears to have excellent fit and is summarized in Table 5.

Reliability analyses. The internal consistency of the IMS was determined by using inter-item correlations. George and Mallery (2003) indicate that a Cronbach's coefficient alpha (α), a test of inter-items correlations, above .7 is considered acceptable, an α above .8 is considered good, and an α above .9 is considered excellent. Results revealed that $\alpha=.91$ for the IMS items.

Validity analyses. Construct validity was assessed by examining convergent and discriminant validity. Convergent validity is the degree of similarity between one measure and another that it should be theoretically similar to and discriminant validity determines if a measure is examining a construct different than other measures that it should be theoretically dissimilar from. A Pearson correlation coefficient was computed to assess for whether or not the scores on these new measures demonstrate good construct validity. Correlations between the IMS scores and the other two scale scores examining marital attitudes and expectations, GAMS and AMS, were first examined. The results indicated that the scores show good construct validity. Results indicate that IMS was moderately correlated to GAMS ($r=.55, p<.001$) and to AMS ($r=.43, p<.001$). These correlations imply that the IMS, GAMS and the AMS are all measuring similar constructs in attitudes towards marriage. However, they each differ in the type of attitudes being measured; therefore the correlations among the scales would be higher if they were measuring the same construct. Subscale correlations ranged from $r=.11$ to $r=.58$ and are presented in Table 12. Overall, the correlations between the IMS and the other two measures indicated that the IMS scores have good construct validity.

Correlations between the IMS and the Marital Attitudes Scale (MAS), the Attitudes Towards Marriage Scale (ATMS), and the Life Orientation Test Revised (LOTR) were then assessed. The MAS and ATMS have both been used in many areas of research regarding marital attitudes and are generally accepted measures. The results indicated that there are moderate correlations between the IMS and the MAS ($r=.59$, $p<.001$) and the ATMS ($r=.62$, $p<.001$). There is a low correlation between the IMS and the LOTR ($r=.24$, $p<.001$). This demonstrates that the IMS scores are valid – they are measuring a construct similar to those measured by the MAS and ATMS, but dissimilar to the construct being measured by the LOTR.

General Attitudes towards Marriage Scale (GAMS)

Exploratory factor analysis. Similarly to the IMS, an exploratory factor analysis was conducted first. A maximum likelihood analysis with an oblique rotation was used to assess the initial factor structure of the items for the GAMS. Attitudes towards marriage have been examined in the literature as mainly positive and negative attitudes. Correlations among items were also used to determine whether or not there should be an oblique or orthogonal rotation. Correlations among the GAMS items ranged from $r=0.09$ ($p<.05$) to $r=0.72$ ($p<.001$). Because most of the correlations ranged from moderate to strong, an oblique rotation was used. Missing data was replaced using maximum likelihood estimation with robust standard errors.

Based on the literature, the GAMS items were written to reflect two factors – one of positive attitudes and the other of negative attitudes towards marriage. The analysis conducted for the current study revealed three major factors with an eigenvalue greater than 1. Overall, these GAMS items accounted for 48.11% of the variance.

Table 5 shows each item's factor loading. Items were deleted from the GAMS based on the recommendations by Tabachnick and Fidell (2001), such that any item with less than 0.32 as its factor loading was considered for removal from the scale. Items that loaded strongly (or over 0.32) on two or more factors were also considered for removal. The proposed factors all met the minimum requirement of containing at least three items.

In the GAMS, it was determined that there were three dominant factors. One factor was best described by items 2, 5, 8 and 9 and captured "Positive Attitudes" towards marriage. The second factor held items 4, 7, and 17 and described "Negative Attitudes" towards marriage. The third factor contained items 10, 13, and 16 and appeared to be best described by affective reactions towards marriage, specifically, "Fears and Doubts". The results also suggested moderate correlations among the factors (Positive Attitudes and Negative Attitudes, $r=0.53$; Positive Attitudes and Fears/Doubts, $r=0.40$; Negative Attitudes and Fears/Doubts, $r=0.47$).

Confirmatory factor analysis. Confirmatory factor analysis was then used to assess how well the theorized factor structure fit with the data. Model fit was assessed using the Tucker-Lewis Index ($TLI > 0.95$), Comparative Fit Index ($CFI > 0.95$), standardized root mean squared residual ($SRMR \leq 0.08$), and the root mean squared error of approximation ($RMSEA \leq 0.06$) (Hu & Bentler, 1999). Ten items fitting 3 factors ("Positive Attitudes", "Negative Attitudes", and "Fears/Doubts") compose the final version of the GAMS. The model appears to have excellent fit and is summarized in Table 7.

Reliability analyses. The internal consistency of the GAMS was determined by using inter-item correlations. George and Mallery (2003) indicate that a Cronbach's alpha

(α) above .7 is considered acceptable, an α above .8 is considered good, and an α above .9 is considered excellent. Results revealed that $\alpha=.84$ for the GAMS items.

Validity analyses. Construct validity was assessed by examining convergent and discriminant validity. A Pearson correlation coefficient was computed to assess for whether or not the scores on these new measures demonstrate good construct validity. Correlations between the GAMS scores and the other two scale scores examining marital attitudes and expectations, the IMS and AMS, were first examined. The results indicated that the scores show good construct validity. Results indicate that GAMS was moderately correlated to IMS ($r=.55, p<.001$) and to AMS ($r=.30, p<.001$). Subscale correlations ranged from $r=.04$ to $r=.61$ and are presented in Table 12. These correlations imply that the GAMS, IMS and the AMS are all measuring similar constructs in attitudes towards marriage. However, they each differ in the type of attitudes being measured; therefore the correlations among the scales would be higher if they were measuring the same construct. Overall, the correlations between the GAMS and the other two measures indicated that the GAMS scores have good construct validity.

Correlations between the GAMS and the Marital Attitudes Scale (MAS), the Attitudes Towards Marriage Scale (ATMS), and the Life Orientation Test Revised (LOTR) were then assessed. The MAS and ATMS have both been used in many areas of research regarding marital attitudes and are generally accepted measures. The results indicated that there are high correlations between the GAMS and the MAS ($r=.74, p<.001$) and the ATMS ($r=.70, p<.001$). There is a low correlation between the GAMS and the LOTR ($r=.28, p<.001$). This demonstrates that the GAMS scores are valid – they

are measuring a construct similar to those measured by the MAS and ATMS, but dissimilar to the construct being measured by the LOTR.

Aspects of Marriage Scale (AMS)

Exploratory factor analysis. A maximum likelihood analysis with an oblique rotation was used to assess the initial factor structure of the items for the AMS. Aspects of marriage has not previously been examined in the literature, thus correlations among items was used to determine whether or not there should be an oblique or orthogonal rotation. Additionally, since each factor on the scale is measuring positive expectation for a certain aspect of marriage, the factors should correlate with one another. Correlations among the Aspects of Marriage items ranged from $r=0.00$ ($p>.05$) to $r=0.82$ ($p<.001$). An oblique rotation was chosen because most of the item correlations were moderate to strong. Missing data was replaced using maximum likelihood estimation with robust standard errors.

The AMS items were written to reflect twelve separate factors assessing different domains of marriage including: trust, shared values, fulfillment, sexual intimacy, emotional support, respect, finances, romance, commitment, fidelity, communication and having children. This analysis revealed twelve major factors with an eigenvalue greater than 1. Overall, these AMS items accounted for 59.15% of the variance.

Factors that had fewer than three items were removed from the scale (Tabachnick & Fidell, 2001). Several factors did not meet this standard and were deleted prior to the confirmatory factor analysis. Table 8 shows each item's factor loading and Table 9 depicts factor correlations. Items were deleted from the AMS based on whether or not the item had a minimum factor loading of 0.32 (Tabachnick & Fidell). Additionally, items

with factor loadings over 0.32 on more than one factor were considered for removal from the final scale. After factor and item deletions, six factors and 23 items remained.

The first factor consisted of items 37, 38, and 39 and appeared to capture the expectation of “Romance” in a marital relationship. Items 27, 46, 48, 51 and 52 examined mutual respect between partners, fidelity and communication; this appeared to assess the expectation of “Respect”. “Trust” was assessed by items 1, 2, 23, 42, and 45 which looked at trust, emotional support and commitment. The aspect of “Finances” was best captured by items 31, 33 and 35. “Meaning” was captured by items 6, 11, 12, and 13 where as these items examined one’s sense of personal fulfillment or the necessity of shared values between partners. Lastly, “Physical Intimacy” was described by items 16, 18 and 19.

Confirmatory factor analysis. Confirmatory factor analysis was then used to assess how well the theorized factor structure fit with the data. Model fit was assessed using the Tucker-Lewis Index ($TLI > 0.95$), Comparative Fit Index ($CFI > 0.95$), standardized root mean squared residual ($SRMR \leq 0.08$), and the root mean squared error of approximation ($RMSEA \leq 0.06$) (Hu & Bentler, 1999). 23 items compose the final version of the AMS. The model appears to have good fit and is summarized in Table 10. Correlations between factors are reported in Table 11.

Reliability analyses. The internal consistency of the AMS was determined by using inter-item correlations. George and Mallery (2003) indicate that a Cronbach’s alpha (α) above .7 is considered acceptable, an α above .8 is considered good, and an α above .9 is considered excellent. Results revealed that $\alpha=.92$ for the AMS items.

Validity analyses. Construct validity was assessed by examining convergent and discriminant validity. A Pearson correlation coefficient was computed to assess for whether or not the scores on these new measures demonstrate good construct validity. Correlations between the AMS scores and the other two scale scores examining marital attitudes and expectations, the IMS and GAMS, were first examined. The results indicated that the scores show good construct validity. Results indicate that AMS was moderately correlated to IMS ($r=.43, p<.001$) and to GAMS ($r=.30, p<.001$). Subscale correlations ranged from $r=.04$ to $r=.60$ and are presented in Table 12. These correlations imply that the AMS, IMS and the GAMS are all measuring similar constructs in attitudes towards marriage. However, they each differ in the type of attitudes being measured; therefore the correlations among the scales would be higher if they were measuring the same construct. Overall, the correlations between the AMS and the other two measures indicated that the AMS scores have good construct validity.

Correlations between the AMS and the Marital Attitudes Scale (MAS), the Attitudes Towards Marriage Scale (ATMS), and the Life Orientation Test Revised (LOTR) were then assessed. The MAS and ATMS have both been used in many areas of research regarding marital attitudes and are generally accepted measures. The results indicated that there are moderate correlations between the AMS and the MAS ($r=.41, p<.001$) and the ATMS ($r=.30, p<.001$). There is a low correlation between the AMS and the LOTR ($r=.25, p<.001$). This demonstrates that the AMS scores are valid – they are measuring a construct similar to those measured by the MAS and ATMS, but dissimilar to the construct being measured by the LOTR.

Marital Attitudes and Expectations Scale (MAES)

The culmination of the factor analyses, reliability analyses and the validity analyses is the final instrument of the MAES, which is made of 36 items, rated on a 7-point Likert scale (0 to 6; ranging from strongly disagree to strongly agree). It is designed to measure intent to marry, general attitudes towards marriage and expectations for aspects of marriage. The MAES is intended to be applicable for any individual regardless of marital status or sexual orientation. Scores range from 0 to 18 for the IMS, 0 to 60 for the GAMS and 0 to 138 for the AMS. Higher scores reflect more positive intent towards marriage for the IMS, more positive attitudes towards marriage for the GAMS, and more positive expectations for marriage for the AMS. Overall, the MAES scores range from 0 to 216.

CHAPTER IV

Discussion

The primary purpose of this study was to develop and validate an instrument applicable to studying intent to marry, general attitudes towards marriage, and expectations for marital relationships. The Marital Attitudes and Expectations Scale (MAES) was separated into three separate measures for analysis because of a lack of statistical power and there was no empirical evidence to suggest that the three constructs should be in the same model. The three separate measures are the Intent to Marry Scale (IMS), General Attitudes Towards Marriage Scale (GAMS), and the Aspects of Marriage Scale (AMS). Results indicated that the measures demonstrate good psychometric properties.

The process of scale construction followed the recommendations outlined by Worthington and Whitaker (2006). An exploratory factor analysis (EFA) was conducted prior to a confirmatory factor analysis (CFA). Subsequent reliability and validity analyses were then completed. It was expected that EFA would especially be needed with the development of the IMS and AMS measures since there was little research support of either being examined in the literature thus far. There has been more research on general positive or negative attitudes towards marriage and more use of such scales (for example, Boyer-Pennington, Pennington & Spink, 2001; Gassanov, Nicholson & Koch-Turner, 2008; Segrin, Taylor & Altman, 2005; Yu & Adler-Baeder, 2007). However, it was expected that an EFA would also need to be conducted on the GAMS because the psychometric properties of well-known scales, such as the Marital Attitudes Scale (MAS; Braaten & Rosén, 1998) and the Attitudes towards Marriage Scale (ATMS; Kinnaird &

Gerrard, 1986), have also not been evaluated. Many of the items used in the GAMS were adopted from the MAS.

As expected, the EFA results for IMS suggested that there was one major factor – Intent to Marry. After items were deleted for redundancy and for low factor loadings, a CFA supported the single factor structure. Fit indices were excellent (CFI = 1.00; TLI = 1.00; RMSEA = 0.00; SRMR = 0.00; $\chi^2(3) = 1019.10, p < .001$). Factor loadings ranged from 0.81 to 0.91. Intent to marry has not been examined as a separate construct in the literature on marital attitudes. The strong psychometric properties of this scale serves as evidence that intent to marry should be evaluated as a distinct construct from positive or negative attitudes towards marriage.

This is further supported by the low to moderate correlations seen amongst the IMS, GAMS and AMS scales and subscales. IMS was moderately correlated to GAMS ($r = .55, p < .001$) and to AMS ($r = .43, p < .001$) and factor correlations ranged from 0.11 to 0.58. These correlations are lower than what would have been expected had we been under the assumption that the IMS, GAMS, and AMS would all be measuring the same construct of interest. These results are proof of construct validity, and implies that the IMS will provide a unique contribution to understanding the general concept of marital attitudes and expectations.

The IMS also exhibited excellent reliability with a Cronbach's α of 0.91. Construct validity was established by comparing the IMS to existing measures such as the Marital Attitudes Scale (MAS) and the Attitudes towards Marriage Scale (ATMS). The results suggested moderate correlations between the IMS and the MAS ($r = .59, p < .001$) and the ATMS ($r = .62, p < .001$). These correlations suggest that the IMS is

measuring a similar construct of interest to other scales that are already in use, thus confirming that the IMS has good construct validity. The low correlation between the IMS and the Life Orientation Test-Revised (LOTR) ($r=.24, p<.001$) suggests that the scale has established discriminant validity. These results suggested that the IMS and LOTR are measuring separate constructs of interest. Overall, it would appear that the IMS has strong psychometric properties.

The GAMS was examined in a similar process. Contrary to what was expected from the literature, the EFA did not reveal two factors of either positive or negative attitudes, the results showed that the GAMS instead had a three-factor structure. Analyses depicted a third factor based on affect, specifically, fears and doubts about marital relationships. The current study then implicates that marital attitudes are not dichotomous as previously thought by scales like the MAS or ATMS. Previous scales, such as the MAS, include items based on affective attitudes and, as indicated earlier, the psychometric properties of scales like the MAS and ATMS have not been evaluated.

It would appear that affective items do not fit into the originally theorized dichotomous factor structure. Logically, affective items should not have a value of “positive” or “negative” placed on them, for individuals taking the measure could read the items for having fears or doubts about marriage differently. It could be a “negative” attitude because the participant is expecting the marriage to be unsuccessful, or it could be a “positive” attitude because the individual has an idea of the level of commitment the relationship would take to be successful. Thus the three factors were: Positive Attitudes, Negative Attitudes, and Fears/Doubts.

The three-factor structure model fit for the GAMS was excellent (CFI = 0.97; TLI = 0.96; RMSEA = 0.06; SRMR = 0.04; $\chi^2(32) = 86.07, p < .001$). Factor loadings ranged from 0.67 to 0.78. Correlations among the factors ranged from moderate to strong; it was strong for the relationship between Positive Attitudes and Negative Attitudes ($r = 0.77$) but moderate for the relationship between Positive Attitudes and Fears/Doubts ($r = 0.45$). The relationship between Negative Attitudes and Fears/Doubts was also moderate ($r = 0.56$). Fears/Doubts as a separate factor or an attitudinal component has not received much attention in the literature. Gabardi and Rosén (1992) examined personal doubts about marriage, as well as, Braaten and Rosén (1998). However, in neither scale were fears and doubts examined as a separate factor from general negative attitudes towards marriage.

It would be worthwhile to further examine an affective quality to holding attitudes about relationships. Perhaps there are other variables acting as moderators or mediators for explaining the moderate correlations in the relationships between Fears/Doubts and Positive Attitudes and Fears/Doubts and Negative Attitudes. For example, one might expect that previous experiences could affect one's affective attitudes towards marriage. Thus, more research on Fears/Doubts may lead to new insight on the cognitive schema (Riggio & Weiser, 2008) for marriage.

Results also indicated that GAMS had good reliability; Cronbach's α was 0.84. Convergent validity was also sufficient; the three-factor GAMS had a moderate correlation with the IMS ($r = .55, p < .001$) and a weak correlation with the AMS ($r = .30, p < .001$). Subscale correlations varied from weak to strong. It appeared that the Fears/Doubts factor had the weakest correlations with the other scale factors. For example, subscale correlations ranged from 0.05 to 0.14 with the AMS factors. Subscale

correlations between Fears/Doubts and the IMS were adequate (ranging from 0.26 to 0.42). Also adequate were the subscale correlations between Positive Attitudes and the other scale factors and Negative Attitudes and the other scale factors.

Though Fears/Doubts fit well as a confirmed factor for examining attitudes towards marriage, it would appear that affective attitudes do not correlate well with expectations for aspects of marriage. It is possible that affective attitudes, such as fear and doubt, are equivalent to deeply embedded attitudes regarding marriage. This type of attitude would then be better suited in predicting marital behaviors or beliefs. It is also possible that affective attitudes are completely separate from the general construct of marital attitudes, and should be examined as a separate and distinct construct. Since little research has been done on affective attitudes or expectations in marital attitudes, it is unclear what conclusions can be drawn by these findings. Further research and exploratory models are necessary to explore and understand these findings.

Construct validity for the GAMS was established by examining the relationship between the GAMS total score and the MAS and ATMS. The correlations were strong (GAMS and MAS: $r=.74, p<.001$; GAMS and ATMS: $r=.70, p<.001$), indicating that the GAMS scores have good construct validity. The GAMS scores also had good discriminant validity when examining the relationship between the GAMS and the LOTR ($r=.28, p<.001$). It would appear that when comparing the GAMS to known scales measuring marital attitudes that the GAMS is psychometrically valid in measuring the same construct as the MAS and ATMS. Additionally, when compared to the LOTR, the GAMS further demonstrated its ability to measure the construct it was designed to

measure by differentiating between attitudes towards life (LOTR) and attitudes towards marital relationships.

Evaluation of the AMS followed the same procedures. The analysis revealed six factors and these six factors are Romance, Respect, Trust, Finances, Meaning, and Physical Intimacy. Romance, Finances, and Physical Intimacy hold items that are directly representative of their factor name. However, Respect, Trust, and Meaning incorporate items that are directly and indirectly representative of the factor name. Respect examined a sense of mutual respect, fidelity and communication. Trust described a sense of trust, emotional support and commitment. Lastly, Meaning examined one's sense of personal fulfillment in the relationship as well as shared values.

Model fit was good for the AMS (CFI = 0.93; TLI = 0.92; RMSEA = 0.07; SRMR = 0.05; $\chi^2(215) = 723.34, p < .001$). Correlations between factors ranged from low to strong. The finances factors appeared to have the lowest correlations to the other factors (ranging from 0.17 to 0.33). Other factor correlations were moderate to high, ranging from 0.45 to 0.86. Reliability for the AMS was excellent with a Cronbach's α of 0.92.

Construct validity appeared to be adequate. Since there are no existing known or established measures for assessing one's expectations regarding aspects of marriage, the AMS was compared to the IMS and GAMS, as well as, the MAS and ATMS for known measures on marital attitudes. The AMS showed weak to moderate correlations with the GAMS ($r = .30, p < .001$) and the IMS ($r = .43, p < .001$). Subscale correlations ranged from 0.04 to 0.60. It appeared that the aspect of Finances was more weakly correlated to the other factors; its subscale correlations ranged from 0.04 to 0.29. While other aspects

factors examined the feelings of the two individuals in the relationship, Finances assesses a concrete, materialistic object. The Finances aspect is therefore not indicative of what one needs emotionally from a relationship. Perhaps, it was too concrete to be considered similar to the other constructs being measured by the MAES.

Though Slosarz (2002) identified that there are material expectations for marriage, the results of that study did not suggest that there should be a weak relationship between material aspects of marriage and other aspects of marriage. Thus, there is no empirical evidence to suggest that there would be a weak relationship between the financial aspect of marriage and the other subscales. More research is needed on these constructs and should consider the possibility that research on marital attitudes could examine material expectations for the relationship, such as finances, neighborhood, home, etc. Examining “material” expectations for the marital relationship is outside the scope of the current discussion and should be explored for its utility.

When compared to other measure, there were low to moderate correlations between the AMS and the MAS ($r=.41, p<.001$) and between the AMS and the ATMS ($r=.30, p<.001$). These results indicate that the AMS is measuring a construct of similar interest to the MAS and ATMS, but that it is dissimilar from general attitudes towards marriage. This makes sense because the AMS was designed to measure one’s expectations regarding different aspects of marriage; it is not meant to assess general attitudes towards marriage. Discriminant validity was clearly established by a low correlation to the LOTR ($r=.25, p<.001$). This further clarifies that the AMS appears to measure what it was designed to and is able to differentiate between a positive life

disposition (LOTR) and expectations towards specific aspects of marriage. Overall, the AMS scores were valid.

Limitations and Directions for Future Research

There were several limitations in constructing the Marital Attitudes and Expectations Scale (MAES). First, the scale was constructed based on a convenience sample of introductory psychology students. Due to the anonymous nature of the survey data in combination with the fact that students were participating in these surveys for class credit, there is the small likelihood that there is repeat data. The data was cleaned of any indicators for repeat data prior to use. In regards to methods for scale construction, a new sample of data should be collected to verify the psychometric construction of the MAES. Additionally, the current study collected one sample which was subsequently used to explore and to validate the factor structure, as well as, check reliability and validity of the new scale. A new sample will help to make the instrument more psychometrically sound.

The current study was able to examine criterion validity, convergent validity and discriminant validity. Examining test-retest validity will offer further credence for the MAES. Exploration of the separate scales (IMS, GAMS, and AMS) as altogether separate constructs in the cognitive schema for marital relationships was not possible in this study. Thus, a limitation is the limited knowledge we have on how the IMS, GAMS and AMS contribute to a general construct of marital attitudes. More research on the MAES will provide opportunities to further develop a theoretical model for marital attitudes. It is possible that the theoretical model for marital attitudes is composed of positive attitudes, negative attitudes, attitudes for intent to marry, affective attitudes, and

attitudes towards expectations for marriage. There are no indications in the current literature that these concepts have been examined in depth. Thus, the MAES is a new instrument which will allow us to do so.

Implications

The purpose of the current study was to create a comprehensive instrument capable of assessing different types of attitudes towards marriage. The study shows that different attitudes towards marriage include: intent to marry, positive attitudes, negative attitudes, affective attitudes, and attitudes for expectations for marriage. Previous measures were limited to positive and negative attitudes towards marriage (Braaten & Rosén, 1998; Cohen, 1985; Gabardi & Rosén, 1991; Kinnaird & Gerrard, 1986). Some are limited to specific populations (Cohen, 1985) or to specific issues (Pearl & Galupo, 2007). Previous studies on expectations for marriage were limited by the historical context of rating marriage roles in traditional or egalitarian terms (Dunn, 1960) or have not been psychometrically analyzed (Slosarz, 2002).

The MAES is different from its predecessors because it is a broad measure capable of assessing what previous measures assessed (such as, positive attitudes, negative attitudes and marital expectations) and what previous measures did not evaluate. This study revealed that intent to marry is an important concept to consider, as is holding affective attitudes towards marriage. The MAES is not only a broad measure of marital attitudes, but it is also psychometrically sound. Most of the previous scales were not analyzed for their psychometric properties (Braaten & Rosén, 1998; Dunn, 1960; Gabardi & Rosén, 1991; Slosarz, 2002).

The MAES is also an inclusive measure. Some previous measures were based on traditional gender roles (Dunn, 1960), or on already married couples (Cohen, 1985). The current measure was designed for use with any individual, regardless of gender, ethnicity, religion, sexual orientation, or marital status. The MAES was designed to measure attitudes towards marital relationship in general, not one's own marital relationship. Thus, the instrument will help us to evaluate attitudes towards marital relationships on a systemic level. The factor structure and items could also be used to evaluate marital attitudes on an individual level for clinicians in practice with distressed couples or individuals.

More research needs to be done to further evaluate the utility of the MAES. Though the MAES is an inclusive, comprehensive instrument for assessing marital attitudes, more research should be done to validate the factor structure of the MAES. Future studies could further our knowledge of relationship among the different types of attitudes found in the MAES. Exploring the utility of affective attitudes will allow for developing our understanding of powerful therapeutic interventions for couples in committed romantic relationships.

Use of the MAES will also help in gaining a more complete knowledge of how early experiences, such as divorce, could impact marital attitudes. Negative attitudes towards marriage are associated with risk-taking behaviors such as sexual activity, binge drinking, and marijuana use (Carroll et al., 2007; Willoughby & Dworkin, 2009). Understanding whether or not there is an affective component to those negative attitudes will help further our field in learning more about the effects of early experiences on the development of negative attitudes and fears or doubts.

Conclusion

The MAES consists of three measures: the IMS, GAMS, and the AMS. The instrument was developed and validated using a sample composed primarily of a college population. The results indicate that the three measures have good fit and psychometric properties. The development of the MAES is the first step in advancing our knowledge about the theoretical construct of marital attitudes. Future studies should work first to validate the structure of the MAES and subsequently to explore theoretical models for marital attitudes.

** Authors note: Free copies of the MAES is available by contacting the authors at stacey.park@colostate.edu and lee.rosen@colostate.edu.**

Tables

Table 1

Descriptive Statistics for Intent to Marry Scale Items

Item	<i>M</i>	<i>SD</i>	Minimum	Maximum
1. I would like to get married.	5.42	1.09	0.00	6.00
2. I don't expect to marry.*	5.00	1.23	0.00	6.00
3. I hope to marry.	5.31	1.08	0.00	6.00
4. I want to marry.	5.31	1.12	0.00	6.00
5. I don't want to marry.*	5.31	1.02	0.00	6.00
6. I don't want to marry.*	5.28	1.10	0.00	6.00
7. I expect to marry.	4.88	1.36	0.00	6.00
8. I would not like to marry.*	5.21	1.18	0.00	6.00
9. I intend to get married someday.	5.29	1.07	0.00	6.00

Note. *Items are reverse scored.

Table 2

Descriptive Statistics for General Attitudes towards Marriage Items

Item	<i>M</i>	<i>SD</i>	Minimum	Maximum
1. Marriage is not a “good idea”.*	4.86	1.34	0.00	6.00
2. Marriage makes people happy.	4.12	1.22	0.00	6.00
3. I have no doubts about marriage.	3.00	1.79	0.00	6.00
4. Most marriages are unhappy situations.*	4.30	1.27	0.00	6.00
5. Marriage is beneficial.	4.63	1.00	0.00	6.00
6. Most marriages are happy situations.	3.85	1.23	0.00	6.00
7. People should not marry.*	4.64	1.20	0.00	6.00
8. Marriage is a “good idea”.	4.36	1.20	0.00	6.00
9. Marriage is important.	4.38	1.29	0.00	6.00
10. I do not have fears of marriage.	2.88	1.86	0.00	6.00
11. People should feel very cautious about entering into a marriage.*	1.96	1.45	0.00	6.00
12. Marriage is unnecessary.*	4.21	1.41	0.00	6.00
13. I have doubts about marriage.*	3.15	1.65	0.00	6.00
14. Marriage is not beneficial.*	4.68	1.06	0.00	6.00
15. Marriage is not important.*	4.68	1.12	0.00	6.00
16. I am fearful of marriage.*	3.47	1.65	0.00	6.00
17. Marriage makes people unhappy.*	4.25	1.18	0.00	6.00
18. People should marry if they can.	3.47	1.32	0.00	6.00

Note. *Items are reverse scored.

Table 3

Descriptive Statistics for Aspects of Marriage Scale

Item	<i>M</i>	<i>SD</i>	Minimum	Maximum
1. Trust is important for a good marriage.	5.74	0.68	0.00	6.00
2. Trust is valuable for a successful marriage.	5.63	0.84	0.00	6.00
3. Trust is important for a healthy marriage.	5.62	0.84	0.00	6.00
4. Trust is not important for a good marriage.*	5.59	1.05	0.00	6.00
5. Trust is not valuable for a successful marriage.*	5.52	1.07	0.00	6.00
6. Shared values between partners are valuable for a good marriage.	5.22	0.88	0.00	6.00
7. Shared values between partners are important for a successful marriage.	5.11	1.14	0.00	6.00
8. Shared values between partners are valuable for a healthy marriage.	5.37	0.80	0.00	6.00
9. Shared values between partners are not valuable for a good marriage. *	4.90	1.43	0.00	6.00
10. Shared values between partners are not important for a healthy marriage.*	4.96	1.32	0.00	6.00
11. Having a sense of personal fulfillment is important for a good marriage.	5.10	1.02	1.00	6.00
12. Having a sense of personal fulfillment is valuable for a successful marriage.	5.27	0.85	1.00	6.00

13. Having a sense of personal fulfillment is important for a healthy marriage.	5.01	1.11	0.00	6.00
14. Having a sense of personal fulfillment is not important for a successful marriage.*	4.86	1.38	0.00	6.00
15. Having a sense of personal fulfillment is not valuable for a healthy marriage.*	4.84	1.42	0.00	6.00
16. Sexual intimacy is valuable for a good marriage.	5.13	1.00	0.00	6.00
17. Sexual intimacy is important for a successful marriage.	5.06	1.11	0.00	6.00
18. Sexual intimacy is valuable for a healthy marriage.	5.15	0.99	0.00	6.00
19. Sexual intimacy is not valuable for a successful marriage.*	5.11	1.10	0.00	6.00
20. Sexual intimacy is not important for a good marriage.*	4.87	1.37	0.00	6.00
21. Emotional support is important for a good marriage.	5.48	0.82	0.00	6.00
22. Emotional support is valuable for a successful marriage.	5.50	0.74	1.00	6.00
23. Emotional support is important for a healthy marriage.	5.51	0.83	0.00	6.00
24. Emotional support is not important for a	5.39	1.09	0.00	6.00

healthy marriage.*				
25. Emotional support is not valuable for a good marriage.*	5.11	1.51	0.00	6.00
26. Respect between partners is valuable for a good marriage.	5.61	0.71	1.00	6.00
27. Respect between partners is important for a successful marriage.	5.54	0.79	0.00	6.00
28. Respect between partners is valuable for a healthy marriage.	5.55	0.74	0.00	6.00
29. Respect between partners is not valuable for a healthy marriage.*	5.42	1.24	0.00	6.00
30. Respect between partners is not important for a successful marriage.*	5.37	1.38	0.00	6.00
31. Financial stability is important for a good marriage.	4.17	1.34	0.00	6.00
32. Financial stability is valuable for a successful marriage.	4.47	1.24	0.00	6.00
33. Financial stability is important for a healthy marriage.	4.22	1.34	0.00	6.00
34. Financial stability is not important for a good marriage.*	4.28	1.45	0.00	6.00
35. Financial stability is not valuable for a successful marriage.*	4.22	1.41	0.00	6.00

36. Romance is valuable for a good marriage.	5.15	0.88	1.00	6.00
37. Romance is important for a successful marriage.	5.03	1.05	0.00	6.00
38. Romance is valuable for a healthy marriage.	5.18	0.87	0.00	6.00
39. Romance is not valuable for a good marriage.*	5.08	1.07	0.00	6.00
40. Romance is not important for a healthy marriage.*	5.15	1.06	0.00	6.00
41. Commitment is important for a good marriage.	5.57	0.90	0.00	6.00
42. Commitment is valuable for a successful marriage.	5.64	0.74	0.00	6.00
43. Commitment is important for a healthy marriage.	5.64	0.82	0.00	6.00
44. Commitment is not important for a successful marriage.*	5.47	1.14	0.00	6.00
45. Commitment is not valuable for a healthy marriage.*	5.50	0.95	0.00	6.00
46. Staying faithful to one another is valuable for a good marriage.	5.61	0.82	0.00	6.00
47. Staying faithful to one another is important for a successful marriage.	5.73	0.70	1.00	6.00
48. Staying faithful to one another is valuable for	5.59	0.86	0.00	6.00

a healthy marriage.

49. Staying faithful to one another is not valuable 5.25 1.61 0.00 6.00

for a successful marriage.*

50. Staying faithful to one another is not 5.44 1.27 0.00 6.00

important for a good marriage.*

51. Communication is important for a good 5.56 0.81 0.00 6.00

marriage.

52. Communication is valuable for a successful 5.59 0.78 0.00 6.00

marriage.

53. Communication is important for a healthy 5.53 0.87 0.00 6.00

marriage.

54. Communication is not important for a healthy 5.62 0.87 0.00 6.00

marriage.*

55. Communication is not valuable for a good 5.54 1.10 0.00 6.00

marriage.*

56. Having children is valuable for a good 3.18 1.34 0.00 6.00

marriage.

57. Having children is important for a successful 2.93 1.32 0.00 6.00

marriage.

58. Having children is valuable for a healthy 2.98 1.35 0.00 6.00

marriage.

59. Having children is not valuable for a healthy 3.23 1.35 0.00 6.00

marriage.*

60. Having children is not important for a successful marriage.*	2.55	1.50	0.00	6.00
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Note. *Items are reverse scored.

Table 4

Summary of Exploratory Factor Analysis Results for Intent to Marry Scale Using a Maximum Likelihood Method (n=508)

Item	Factor 1
1	0.90
2	0.71
3	0.85
4	0.92
5	0.86
6	0.82
7	0.70
8	0.76
9	0.88

Note. Factor loadings over .32 appear in bold.

Table 5

Unstandardized Loadings and Standardized Loadings for Confirmatory Model of the Intent to Marry Scale (n=508)

Item	Factor 1	
	Unstandardized	Standardized
4. I want to marry.	1.00 (0.00)	0.91 (0.01)
5. I do not hope to marry.	0.96 (0.04)	0.91 (0.01)
9. I intend to get married someday.	0.83 (0.04)	0.81 (0.02)
Cronbach's α		0.91

Note. CFI = 1.00; TLI = 1.00; RMSEA = 0.00; SRMR = 0.00. $\chi^2(3) = 1019.10; p < .001$.

Table 6

Summary of Exploratory Factor Analysis Results for General Attitudes towards Marriage

Scale Using a Maximum Likelihood Method (n=516)

Item	Factor Loadings		
	Factor 1	Factor 2	Factor 3
1	0.30	0.47	-0.04
2	0.59	0.03	0.15
3	0.27	-0.16	0.61
4	0.06	0.61	0.03
5	0.57	0.17	0.05
6	0.32	0.24	0.13
7	0.32	0.49	-0.10
8	0.62	0.11	0.02
9	0.79	0.04	-0.04
10	-0.03	-0.07	0.87
11	-0.13	0.31	0.18
12	0.50	0.33	-0.05
13	0.03	0.21	0.56
14	0.46	0.46	-0.03
15	0.60	0.39	-0.10
16	-0.14	0.19	0.69
17	0.13	0.65	0.10
18	0.53	-0.12	0.03

Note. Factor loadings over .32 appear in bold.

Table 7

Standardized Loadings for Confirmatory Model of the General Attitudes towards Marriage Scale (n=516)

Item	Factor		
	Positive Attitudes	Negative Attitudes	Fears/Doubts
1. Marriages make people happy.	0.70(0.03)		
2. Marriage is beneficial.	0.71(0.03)		
3. Marriage is a “good idea”.	0.75(0.03)		
4. Marriage is important.	0.73(0.03)		
5. Most marriages are unhappy situations.		0.67(0.03)	
6. People should not marry.		0.67(0.03)	
7. Marriage makes people unhappy.		0.78(0.03)	
8. I do not have fears of marriage.			0.76(0.03)
9. I have doubts about marriage.			0.70(0.03)
10. I am fearful of marriage.			0.78(0.03)
Cronbach’s α	0.81	0.75	0.79

Note. CFI = 0.97; TLI = 0.96; RMSEA = 0.06; SRMR = 0.04. $\chi^2(32) = 86.07$; $p < .001$.

Standardized correlation between Positive Attitudes and Negative Attitudes is 0.77, Positive Attitudes and Fears/Doubts is 0.45, and Negative Attitudes and Fears/Doubts is 0.56.

Table 8

Summary of Exploratory Factor Analysis Results for Aspects of Marriage Scale Using a Maximum Likelihood Method (n=516)

Item	Factor Loadings											
	1	2	3	4	5	6	7	8	9	10	11	12
1	.40	.33	.12	-.03	.28	-.06	.09	.05	.02	.01	.26	.01
2	.47	.06	.52	-.02	.12	.01	-.10	.01	.07	-.02	-.04	-.00
3	.83	-.03	.10	-.06	.13	.07	.00	.07	-.02	.03	-.05	.01
4	.20	.02	.13	.16	.27	.01	.01	-.02	-.03	-.03	-.03	.01
5	.26	-.02	-.02	.49	.24	-.13	-.05	-.03	-.04	.04	.04	-.12
6	.35	-.05	.03	.15	-.15	.15	-.09	.12	.03	.02	.45	-.03
7	.13	.00	.24	.16	-.15	.19	.02	.00	-.05	.03	.29	.03
8	.10	.22	-.02	.10	.16	-.02	.03	-.00	-.00	-.05	.80	.03
9	-.18	-.10	-.04	.60	.04	.02	.02	-.07	.10	.01	.22	.01
10	.07	-.11	-.01	.38	.04	-.04	.01	-.11	-.03	.12	.32	.00
11	.01	.08	.16	-.01	-.01	.80	.01	.08	.03	.06	.00	.02
12	.05	.30	-.03	-.03	.05	.58	-.02	.08	.03	.06	.28	-.02
13	.25	-.11	-.00	-.06	-.07	.85	.03	.02	.00	.03	-.12	-.02
14	-.18	-.03	-.09	.51	-.01	.41	-.04	-.05	-.05	-.01	.02	.04
15	-.03	-.06	-.01	.27	.10	.38	-.06	-.08	-.02	-.00	-.00	-.05
16	-.01	-.05	.19	-.06	.13	.04	-.05	-.09	.77	.03	-.03	.05
17	-.03	.19	.02	-.06	-.02	.02	.03	-.02	.75	.04	.03	.05
18	.28	.00	-.20	-.07	-.05	-.02	-.02	.03	.79	.01	.04	.05

19	-.04	-.09	-.02	.18	.29	-.01	.01	-.01	.68	-.01	.02	.03
20	-.11	-.01	.03	.33	-.05	.00	.03	.10	.56	-.05	-.12	-.09
21	.74	.01	-.06	.09	-.21	.04	.03	-.14	-.05	-.01	-.05	.07
22	.39	.02	.48	.11	.07	.06	.01	-.12	-.03	.00	.01	.12
23	.38	.28	.23	.10	-.03	.03	.06	-.16	-.03	-.01	.04	.06
24	.16	.02	.03	.39	.09	.06	-.00	-.01	-.03	-.06	-.04	.06
25	.06	.02	.05	.27	.05	.02	.04	-.19	.03	-.05	-.06	-.00
26	.49	.00	.38	.12	.07	.03	-.04	-.06	.01	-.02	.07	.03
27	.87	-.10	.13	.02	.06	-.01	-.03	.02	.00	-.01	.03	.07
28	.88	.05	-.05	.09	-.24	-.02	-.03	-.08	-.01	-.01	-.05	.04
29	.10	.01	.12	.51	-.06	-.11	-.06	.06	-.07	.01	.01	.04
30	.08	.02	.16	.51	-.08	-.07	.04	.04	.00	-.01	-.08	-.09
31	-.02	.09	.02	-.08	.01	.04	.06	-.03	.03	.87	.02	-.03
32	.20	-.05	-.07	-.07	-.10	-.04	-.06	-.01	.01	.78	.01	.04
33	-.06	.08	.08	-.02	-.07	.01	.03	.01	.04	.92	-.00	-.01
34	-.08	-.10	.02	.18	.14	-.03	-.05	.06	-.03	.69	-.06	.05
35	-.02	.02	-.09	.09	.08	.05	.00	.01	-.02	.71	-.05	-.01
36	-.07	.08	.23	-.05	.04	-.00	.00	-.05	.04	.04	-.02	.83
37	.22	-.03	-.09	-.07	-.01	.01	.04	.14	-.01	-.01	.11	.76
38	.29	-.19	-.04	.00	.07	-.03	-.02	.02	.12	-.03	.03	.63
39	-.03	-.01	-.03	.09	.19	.03	-.02	-.15	.09	-.03	-.03	.56
40	-.08	.12	.11	.23	-.13	-.02	.03	.04	-.01	.03	-.11	.63
41	.73	.03	.11	.04	.02	.06	.01	.02	-.00	.02	-.12	-.01

42	.39	.47	.12	.11	.07	-.06	.00	-.01	.02	.10	.06	-.03
43	.47	.32	.23	.08	-.04	.02	-.02	-.00	.02	.01	-.04	.04
44	.29	.15	-.13	.31	.16	-.05	.04	-.15	.08	.02	-.07	-.11
45	.40	.07	.00	.19	.36	-.06	.05	-.01	-.01	-.00	.03	.07
46	.76	.23	-.16	.14	.01	.04	-.02	.48	-.04	.00	-.01	.05
47	.35	.64	-.03	.09	.06	.03	-.05	.16	-.00	.03	.07	.01
48	.72	.09	.01	-.03	.10	.07	-.04	.26	.06	-.03	-.01	.04
49	-.01	.10	-.14	.51	.06	-.04	.04	.18	-.04	-.07	.01	.05
50	.26	.19	-.19	.22	.24	.11	-.01	.09	.01	-.03	-.04	-.05
51	.77	-.05	.03	.05	-.02	-.01	.03	.01	.05	.03	.10	-.07
52	.91	-.11	.14	.04	.15	.01	.00	.18	-.02	-.02	.04	-.01
53	.78	.10	.03	-.05	-.07	-.03	-.04	-.03	.05	-.03	.10	-.10
54	.22	.08	.15	.32	.20	.00	.09	.01	-.03	.00	-.01	-.04
55	.12	-.04	.12	.26	.28	.04	.08	.00	.02	-.02	.00	.01
56	.06	-.02	.06	-.06	-.06	.01	-.85	-.02	.06	.02	-.01	-.04
57	.09	-.01	.02	-.04	-.06	.03	-.87	.07	-.06	-.04	-.03	.02
58	.04	.00	.02	.01	-.06	-.04	-.82	.04	.06	-.01	.03	-.06
59	-.11	.07	.06	.07	.10	-.03	-.58	-.09	-.03	-.03	-.04	.07
60	-.19	.09	-.07	.06	.05	-.03	-.62	-.01	-.03	.06	.03	.03

Note. Factor loadings over .32 appear in bold.

Table 9

Exploratory Factor Analysis Factor Correlations for the Aspects of Marriage Scale

Using a Maximum Likelihood Method (n=516)

	Factor												
	1	2	3	4	5	6	7	8	9	10	11	12	
1	1												
2	.32	1											
3	.11	.36	1										
4	.53	.31	.22	1									
5	.26	.20	.00	.24	1								
6	.48	.16	.15	.46	.14	1							
7	-.02	.00	.14	-.03	-.05	-.09	1						
8	-.34	-.22	.05	-.28	-.17	-.31	.12	1					
9	.31	.15	.15	.33	.08	.32	.00	-.10	1				
10	.19	.01	.01	.22	.11	.29	-.25	-.14	.17	1			
11	.38	.09	.21	.31	-.01	.48	-.07	-.14	.16	.23	1		
12	.46	.16	.10	.43	.13	.41	-.12	-.27	.44	.32	.27	1	

Table 10

Standardized Loadings for Confirmatory Model of the Aspects of Marriage Scale

(n=516)

Item	Factors					
	Romance	Respect	Trust	Finances	Meaning	Physical
37	0.77(0.02)					
38	0.87(0.02)					
39	0.66(0.03)					
27		0.91(0.01)				
46		0.77(0.02)				
48		0.76(0.02)				
51		0.80(0.02)				
52		0.92(0.01)				
1			0.79(0.02)			
2			0.71(0.03)			
23			0.76(0.02)			
42			0.78(0.02)			
45			0.68(0.03)			
31				0.88(0.02)		
33				0.90(0.02)		
35				0.68(0.03)		
6					0.65(0.03)	
11					0.84(0.02)	

12						0.81(0.02)
13						0.79(0.02)
16						0.84(0.02)
18						0.80(0.02)
19						0.74(0.03)
α	0.80	0.92	0.85	0.85	0.85	0.83

Note. CFI = 0.93; TLI = 0.92; RMSEA = 0.07; SRMR = 0.05. $\chi^2(215) = 723.34; p < .001$.

Table 11

Factor Correlations for the Confirmatory Model of the Aspects of Marriage Scale

(n=516)

Item	Factors					
	1	2	3	4	5	6
1: Romance	1					
2: Respect	0.64	1				
3: Trust	0.53	0.86	1			
4: Finances	0.28	0.17	0.23	1		
5: Meaning	0.53	0.64	0.65	0.33	1	
6: Physical	0.64	0.45	0.46	0.25	0.47	1

Table 12

Subscale Correlations for the IMS, GAMS, and the AMS

	IM	G1	G2	G3	A1	A2	A3	A4	A5	A6
IM	1									
G1	.58**	1								
G2	.50**	.61**	1							
G3	.26**	.37**	.42**	1						
A1	.29**	.22**	.27**	.14*	1					
A2	.43**	.27**	.28**	.07	.53**	1				
A3	.41**	.30**	.36**	.07	.48**	.77**	1			
A4	.11	.15**	.05	.04	.25**	.16*	.20**	1		
A5	.35**	.31**	.25**	.11*	.47**	.60**	.57**	.29**	1	
A6	.21**	.16**	.20**	.05	.54**	.41**	.40**	.20**	.40**	1

Note. * indicates $p < .05$, ** indicates $p < .001$. IM= Intent to Marry Scale, G1=Positive Attitudes, G2=Negative Attitudes, G3 = Fears/Doubts, A1=Romance, A2=Respect, A3= Trust, A4=Finances, A5= Meaning, and A6=Physical Intimacy.

Appendices

Appendix A

List of Final Items from Confirmatory Factor Analyses

Intent to Marry Scale

- 4. I want to marry.
- 5. I do not hope to marry.*
- 9. I intend to get married someday.

General Attitudes towards Marriage Scale

- 2. Marriage makes people happy.
- 5. Marriage is beneficial.
- 8. Marriage is a “good idea”.
- 9. Marriage is important.
- 4. Most marriages are unhappy situations. *
- 7. People should not marry. *
- 17. Marriage makes people unhappy. *
- 10. I do not have fears of marriage.
- 13. I have doubts about marriage. *
- 16. I am fearful of marriage. *

Aspects of Marriage Scale

- 37. Romance is important for a successful marriage.
- 38. Romance is valuable for a healthy marriage.
- 39. Romance is not valuable for a good marriage.*
- 27. Respect between partners is important for a successful marriage.

- 46. Staying faithful to one another is valuable for a good marriage.
- 48. Staying faithful to one another is valuable for a healthy marriage.
- 51. Communication is important for a good marriage.
- 52. Communication is valuable for a successful marriage.
- 1. Trust is important for a good marriage.
- 2. Trust is valuable for a successful marriage.
- 23. Emotional support is important for a healthy marriage.
- 42. Commitment is valuable for a successful marriage.
- 45. Commitment is not valuable for a healthy marriage.*
- 31. Financial stability is important for a good marriage.
- 33. Financial stability is important for a healthy marriage.
- 35. Financial stability is not valuable for a successful marriage.*
- 6. Shared values between partners are valuable for a good marriage.
- 11. Having a sense of personal fulfillment is important for a good marriage.
- 12. Having a sense of personal fulfillment is valuable for a successful marriage.
- 13. Having a sense of personal fulfillment is important for a healthy marriage.
- 16. Sexual intimacy is valuable for a good marriage.
- 18. Sexual intimacy is valuable for a healthy marriage.
- 19. Sexual intimacy is not valuable for a successful marriage.*

Appendix B

Final List of MAES Items

Marital Attitudes and Expectations Scale

0-6 Likert scale: 0=strongly disagree, 1=moderately disagree, 2=slightly disagree

3=neither disagree or agree, 4=slightly agree, 5=moderately agree, 6=strongly agree.

* indicates reverse-scoring.

Intent to Marry Scale

1. I intend to get married someday.
2. I want to marry.
3. I do not hope to marry.*

General Attitudes towards Marriage Scale

1. Marriage is beneficial.
2. I am fearful of marriage.*
3. People should not marry.*
4. I have doubts about marriage.*
5. Marriage is a “good idea”.
6. I do not have fears of marriage.
7. Marriage makes people happy.
8. Most marriages are unhappy situations.*
9. Marriage is important.
10. Marriage makes people unhappy.*

Aspects of Marriage Scale

1. Having a sense of personal fulfillment is important for a good marriage.
2. Romance is important for a successful marriage.
3. Staying faithful to one another is valuable for a good marriage.
4. Trust is important for a good marriage.
5. Sexual intimacy is valuable for a good marriage.
6. Commitment is valuable for a successful marriage.
7. Financial stability is important for a good marriage.
8. Having a sense of personal fulfillment is important for a healthy marriage.
9. Romance is valuable for a healthy marriage.
10. Shared values between partners are valuable for a good marriage.
11. Communication is important for a good marriage.
12. Sexual intimacy is valuable for a healthy marriage.
13. Financial stability is not valuable for a successful marriage.*
14. Emotional support is important for a healthy marriage.
15. Romance is not valuable for a good marriage.*
16. Having a sense of personal fulfillment is valuable for a successful marriage.
17. Commitment is not valuable for a healthy marriage.*
18. Communication is valuable for a successful marriage.
19. Financial stability is important for a healthy marriage.
20. Trust is valuable for a successful marriage.
21. Respect between partners is important for a successful marriage.

22. Staying faithful to one another is valuable for a healthy marriage.

23. Sexual intimacy is not valuable for a successful marriage.*

Appendix C

Abbreviated Thesis for Journal Submission

Initial Development of the Marital Scales

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Abstract

Attitudes towards marital relationships have been examined in three ways in the literature. Studies focus on intent to marry, global positive or negative attitudes towards marriage, and expectations for what married life will be like. There are currently no instruments capable of assessing all three of these areas. The present study outlines the development and validation of the Marital Scales. Three scales comprise the Marital Scales: one is designed to measure intent to marry (Intent to Marry Scale, IMS), another is for general attitudes towards marriage (General Attitudes towards Marriage Scale, GAMS), and the last scale measures expectations for marital relationships (Aspects of Marriage Scale, AMS). In sum, the marital scales are composed of 36-items, and are on a 7-point Likert scale. They are also designed to be applicable for any individual, regardless of marital status or sexual orientation. Results demonstrated internal reliability and construct validity for the instrument.

Keywords: marital relationships, attitudes, expectations, measure

Initial Development of the Marital Scales

Attitudes and expectations about relationships are important cognitions regarding personal relationships (Riggio & Weiser, 2008). Highly embedded positive and negative marriage attitudes may affect beliefs about relationships (Riggio & Weiser, 2008) and subsequent behaviors such as decisions to marry and behavioral patterns within the relationship. Past research on attitudes and expectations for marital relationships relies on instruments limited in generalizability, as well as, instruments with limited ability to capture the full construct of attitudes towards marital relationships. There is a need for better measures capable of assessing these different domains for marital relationships.

There are a number of scales measuring overall attitudes towards marriage (Braaten & Rosén, 1998; Cohen, 1985; Gabardi & Rosén, 1991; Kinnaird & Gerrard, 1986), there are a couple of scales measuring expectations for marriage (Dunn, 1960; Slosarz, 2002), and there is one scale measuring attitudes towards same-sex marriage (Pearl & Galupo, 2007). The present study outlines the development of a new instrument assessing overall attitudes towards marriage, expectations to get married, and expectations for what a married life will be like in multiple domains for marital relationships. Ultimately, the applicability of this measure should be for all individuals, regardless of age, ethnicity, gender, marital status, sexual orientation and experiences with relationships.

Existing Measures for Examining Marital Attitudes and Expectations

Measures for expectations to get married are quite varied. Some studies have used a few of the items from existing scales such as the Attitudes towards Marriage Scale, to indicate an individual's intent to marry (Boyer-Pennington, Pennington &

Spink, 2001). Other studies have relied on asking questions about expectations to marry on a Likert scale, where participants indicate the degree to which they agree with a statement such as “I would like to be married now” (Crissey, 2005; Riggio & Weiser, 2008; Willoughby & Carroll, 2010). Some studies rely on an individual’s numerical response to questions, such as, “What is the percent chance you’ll be married in the next five years?” (Gassanov, Nicholson & Koch-Turner, 2008; Plotnick, 2007). There are currently no instruments incorporating intent to marry as a specific subscale.

Measures of marital attitudes and expectations, such as the Locke-Wallace Short Marital Adjustment Scale (Cohen, 1985) and the Spanier’s Dyadic Adjustment Scale (Cohen, 1985), are for heterosexual married couples (Crowell, Treboux, & Brockmeyer, 2009; McNulty & Karney, 2004). Other scales, such as the Marriage Role Expectation Inventory (Dunn, 1960), assess the type of roles one might have in a married relationship based on traditional or egalitarian stereotypes. Another group of scales assess overall positive or negative attitudes towards marriage, such as the Attitudes Towards Marriage Scale (Kinnaird & Gerrard, 1986) and the Marital Attitudes Scale (Braaten & Rosén, 1998), and have been used in research on divorce outcomes (Boyer-Pennington, Pennington, & Spink, 2001; Gabardi & Rosén, 1991; Gabardi & Rosén, 1992). And, the Marriage Role Expectation Inventory (MREI) and the List of Expectations from Marriage (Slosarz, 2002) examines expectations relating to marriage roles in traditional and egalitarian terms (Dunn, 1960). All of these measures have significant limitations.

The Locke-Wallace Short Marital Adjustment Scale (Cohen, 1985) was developed for assessing adjustment of currently married heterosexual couples. It is a shorter form of the Locke Marital Adjustment Test and is considered to be easier to

administer (Cohen, 1985). Researchers reported a split-half reliability of .90. The scale was developed to indicate the probability of the level of adjustment for two married individuals. Thus, its applicability is limited to individuals already in a marital relationship and does not indicate marital expectations for non-married individuals.

Spanier's Dyadic Adjustment Scale (SDAS) (Cohen, 1985) was designed to address criticisms of the Locke Marital Adjustment Scale, which was that it would assume a score from one individual represents adjustment for both individuals. The SDAS has four subscales: consensus, satisfaction, cohesion and affectional expression. Cohen (1985) reported a reliability of .90, .94, .86, and a .73 respectively for each of the subscales; reliability for the entire scale was a .96. The SDAS was designed to focus on individuals who are married or already cohabitating with their partner (Cohen, 1985). Similarly to the Locke-Wallace Marital Adjustment Scale, the SDAS is not applicable for non-married individuals. And it is also not applicable for assessing one's overall favorableness towards marriage or one's expectations for married life.

The Attitudes towards Marriage Scale (Kinnaird & Gerrard, 1986) assesses overall favorable and negative attitudes towards marriage on a 5-point Likert scale. The scale consists of 14 items and assesses global attitudes towards marriage, for example, "I believe marriage is one of the most important things in life", as well as questions about one's stance towards the idea of marriage, "How difficult would it be for you to adjust to married life" (Kinnaird & Gerrard, 1986). Kinnaird and Gerrard (1986) indicated that the scale has a Cronbach alpha of .88, and a test-retest reliability of .87. While the scale assessed overall attitudes towards marriage, the scale does not examine expectations for the different aspects of a marital relationship.

The Attitudes toward Marriage Scale developed by Gabardi and Rosén (1991) is an 8-item instrument designed to examine idealized beliefs (e.g., “Loving each other is enough to keep the marriage together”) and personal doubts (e.g., “If I get married, I have little confidence that my marriage will be a success”). Gabardi and Rosén (1992) reported the standardized alpha for the Doubt scale was .69, .59 for the Idealized beliefs scale, and .68 for the entire scale. The scale does examine global idealized beliefs and doubts one has for marriage, and it is helpful in determining one’s overall attitude towards marriage. The Attitudes Toward Marriage Scale does not, however, explore expectations for different aspects of a marital relationship.

The Marital Attitudes Scale (MAS) developed by Braaten and Rosén (1998) was constructed to assess one’s subjective opinion of the institution of heterosexual marriage. The MAS was different from its predecessors; it was developed to assess the attitudes of both married and non-married individuals. The scale is composed of 6 items regarding feelings towards one’s current or future marriage, and the other 17 items examine feelings towards the institution of marriage as a whole. Braaten and Rosén (1998) indicated an internal reliability of .82. Bassett, Braaten and Rosén (1999) reported a test-retest reliability of .85. The scale focuses on personal and global levels of favorableness towards marriage. However, the MAS does not explore attitudes for different aspects of marriage.

The Marriage Role Expectation Inventory (MREI) is composed of 71 statements examining expectations relating to marriage roles in traditional and egalitarian terms (Dunn, 1960). The MREI is made of seven subscales assessing authority, homemaking, child care, personal characteristics, social participation, education, and employment and

support. Dunn (1960) reported a split-half reliability of .95. The MREI looks at only a specific part of what marital relationships should be like. It looks at one's expectations for a traditional or an egalitarian role in marriage. Additionally, some items in the scale may have little significance for individuals deciding on marriage today. The idea of "homemaking" for women (Dunn, 1960) is no longer applicable with "emerging adults" (Arnett, 2000) in pursuit of secondary education.

A more recent study done in Poland used a list of 40 statements as a List of Expectations from Marriage (Slosarz, 2002). The sample used for the study was 200 part-time, married students ranging from 25 to 40 years old at several universities in Poland, the reported Cronbach alpha for the sample was a .89 (Slosarz, 2002). The students were asked to report on a 3-point scale the level to which they had the expectations for items such as "mutual trust" and "satisfaction from sexual life". The list was ultimately divided into five types of expectations: emotional, partnership, protection, sexual and material. However, there were no reported psychometric evaluations of the factor structure.

Current Study

There are clear limitations in our knowledge of attitudes, beliefs, and expectations for marital relationships. It is clear that there are relationships between marital attitudes, marital expectations, beliefs and behaviors (Riggio & Weiser, 2008). These relationships are yet to be explored because of the lack of measures in this area. It would be helpful to have theories for understanding marital, or committed relationships, and to have a conceptualization of how events may impact expectations for committed relationships.

Currently, the field is limited in its ability to measure the constructs necessary for developing such theories.

In practical terms, a new scale could allow us to understand the value of certain expectations and attitudes for individuals who are about to enter or leave a marital relationship. And, it could be used in couples therapy or family therapy as an objective assessment tool. A new scale could also be used as an objective measure able to understand expectations for relationships and how that may affect other issues in interpersonal relationships. The current study focuses on creating a scale capable of assessing intent for marriage, attitudes towards marriage, and expectations for marital relationships

Method

Participants

There were 516 participants (189 males, 325 females, 2 unknown) ranging in age from 17 to 41 ($M = 19.57$, $SD = 2.27$). 83.1% of the sample self-identified as Caucasian/White, 6.2% as Latino or Hispanic, and 3.9% as African American or Black. 6.8% of the sample self-identified as American Indian/Native American, Asian American, Hawaiian/Pacific Islander, Middle Eastern American or Other. 95.7% of the sample self-identified as heterosexual, or sexually interested in the opposite sex. 33.3% of the sample indicated that they were currently in a relationship; 1.4% indicated they were married. 2.1% indicated that they have children. Lastly, 28.5% of the sample indicated that their biological parents were currently divorced. All of the participants were enrolled in an introductory psychology course at a large western United States university and volunteered to participate in the study for course credit. All aspects of the

study were reviewed and approved by the Institutional Review Board for human research participants.

Construction of the Marital Attitudes and Expectations Scale

The development of the Marital Attitudes and Expectations Scale followed the process outlined by Worthington and Whittaker (2006). First, the construct was defined clearly and concretely through theory and research. Second, a pool of items was then written to reflect intent to marry, attitudes towards marriage, and expectations for different domains in marriage. These items were written using clear, concise and readable language. They were then reviewed by multiple groups of experts for their quality. Worthington and Whittaker recommend taking particular note on the items' clarity, conciseness, reading level, face validity, content validity, and redundancy. Fourth, the items were then administered to a sample. Though Worthington and Whittaker advocate that it is best to administer the new items without additional measures they also recommend that if one does use additional measures, to administer the new items first in order to prevent contamination on responses to the new items. Fifth, the factor structure of the new scale was analyzed using exploratory factor analysis (EFA) then confirmatory factor analysis (CFA).

Procedure

Initially, 87 potential items were developed: 9 assessed intent to marry, 18 for general attitudes towards marriage and 60 for aspects of marriage. Each item was rated on a 7-point (from 0-6) Likert scale, ranging from strongly disagree to strongly agree. The items were administered to participants through Qualtrics, an online service designed for collecting research data. Participants were guided to a survey link through a posting

on the psychology department's research website. The participants were given informed consent and told that the study concerned marital attitudes and expectations. They were then asked to complete a battery of measures consisting of 87 potential items for the new scales, three other measures (MAS, ATMS, LOTR), and demographic questions. All new items were randomized and given first to participants, prior to the other measures which are outlined below.

Marital Attitudes Scale. In order to assess convergent validity for the new measure, marital attitudes were assessed by the Marital Attitudes Scale (MAS) developed by Braaten and Rosén (1998). This scale examines individuals' subjective opinions of heterosexual marriage. The MAS consists of 23 items and looks specifically at perceptions of the self as well as perceptions of marriage as a whole. It has been used extensively in research correlating marital attitudes with divorce outcomes and interpersonal outcomes (i.e., Segrin, Taylor & Altman, 2005; Yu & Adler-Baeder, 2007). It was expected that the new instrument would correlate highly with the MAS as a demonstration of good convergent validity.

Attitudes towards Marriage Scale. Marital attitudes were also assessed using the Attitudes towards Marriage Scale (ATMS) by Kinnaird and Gerrard (1986). The ATMS assesses overall positive and negative attitudes towards marriage. The scale has also been used in research examining general attitudes towards marriage (e.g., Boyer-Pennington, Pennington & Spink, 2001; Gassanov, Nicholson & Koch-Turner, 2008). Similarly to the MAS, it was expected that the new instrument would correlate highly to the ATMS as further validation of good convergent validity.

Life Orientation Test – Revised. The Life Orientation Test – Revised (LOTR) by Scheier, Carver and Bridges (1994) assesses dispositional optimism. The LOTR consists of ten items, four of which are not included when calculating a final score of dispositional optimism for participants. Scheier et al. (1994) reported a Cronbach alpha of .78 and a test-retest reliability of .79 over the course of 28 months. This measure was used to establish discriminant validity.

Demographic questions. Demographic questions were given last in the study. Participants were asked to report their age, gender, ethnicity, sexual orientation, relationship status, cohabitation status, number of children, and parent relationship status. Lastly, the participants were sent to a debriefing form and were thanked for their participation.

Results

Marital Attitudes and Expectations Scale

The Marital Attitudes and Expectations Scale (MAES) was analyzed as three separate scales measuring intent to marry, general favorableness towards marriage, and expectations for different aspects of marriage. The MAES was divided into three separate scales for statistical analyses because there is no empirical support suggesting that intent to marry, attitudes towards marriage and expectations for marriage could be expected to factor together. The process of constructing these scales, the items and the psychometric properties of each of these scales are described below.

Intent to Marry Scale (IMS)

Exploratory factor analysis. An exploratory factor analysis was conducted in order to follow the steps of scale construction outlined by Worthington and Whittaker

(2006), and to explore concepts related to marital relationships that have been previously unexplored. A maximum likelihood method with an oblique rotation was used to assess the initial factor structure of the items for the IMS. Missing data was replaced using maximum likelihood estimation with robust standard errors (Allison, 2009).

As guidelines for the exploratory factor analysis, factors were retained based on whether or not the factor had an eigenvalue greater than 1 (Kaiser, 1958). Items were deleted from the IMS if the factor loading of the item was lower than 0.32 and factors were not retained if they had fewer than three variables (Tabachnick & Fidell). The IMS items were written to reflect a single factor of positive intent towards marriage. The analysis revealed one major factor with an eigenvalue greater than 1. Overall, the IMS items accounted for 67.98% of the variance. All the IMS items loaded strongly onto one factor; thus, items were deleted based on their content. It was determined that three items had high factor loadings and that the other items were repetitive of the content being captured by these three items.

Confirmatory factor analysis. Confirmatory factor analysis was then used to assess how well the theorized factor structure fit with the data. Hu and Bentler (1999) recommend that the Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) are greater than or equal to 0.95. Hu and Bentler also suggest that the standardized root mean squared residual (SRMR) is less than or equal to 0.08 and the root mean squared error of approximation (RMSEA) is less than or equal to 0.06. Three items compose the final one factor version of the IMS. The model appears to have excellent fit and is summarized in Table 5.

Reliability analyses. The internal consistency of the IMS was determined by using inter-item correlations. George and Mallery (2003) indicate that a Cronbach's coefficient alpha (α), a test of inter-items correlations, above .7 is considered acceptable, an α above .8 is considered good, and an α above .9 is considered excellent. Results revealed that $\alpha=.91$ for the IMS items.

Validity analyses. Construct validity was established by examining Pearson correlation coefficients among the new scales and additional measures. Results indicate that IMS was moderately correlated to GAMS ($r=.55, p<.001$) and to AMS ($r=.43, p<.001$). Subscale correlations ranged from $r=.11$ to $r=.58$ and are presented in Table 12. Overall, the correlations between the IMS and the other two measures were moderate and indicate good construct validity for the IMS. Correlations between the IMS and the Marital Attitudes Scale (MAS), the Attitudes Towards Marriage Scale (ATMS), and the Life Orientation Test Revised (LOTR) were then assessed. The MAS and ATMS have both been used in many areas of research regarding marital attitudes and are generally accepted measures. The results indicated that there are moderate correlations between the IMS and the MAS ($r=.59, p<.001$) and the ATMS ($r=.62, p<.001$). There is a low correlation between the IMS and the LOTR ($r=.24, p<.001$). This demonstrates that the IMS scores are valid – they are measuring a construct similar to those measured by the MAS and ATMS, but dissimilar to the construct being measured by the LOTR.

General Attitudes towards Marriage Scale (GAMS)

Exploratory factor analysis. Similarly to the IMS, an exploratory factor analysis was conducted first. A maximum likelihood analysis with an oblique rotation was used to assess the initial factor structure of the items for the GAMS. Missing data

was replaced using maximum likelihood estimation with robust standard errors. Based on the literature, the GAMS items were written to reflect two factors – one of positive attitudes and the other of negative attitudes towards marriage. The analysis conducted for the current study revealed three major factors with an eigenvalue greater than 1. Overall, these GAMS items accounted for 48.11% of the variance.

It was determined that there were three dominant factors for the GAMS. One factor was best described by “Positive Attitudes” towards marriage. The second factor described “Negative Attitudes” towards marriage, and the third factor summarized affective reactions towards marriage, specifically, “Fears/Doubts”. The results also suggested moderate correlations among the factors (Positive Attitudes and Negative Attitudes, $r=0.53$; Positive Attitudes and Fears/Doubts, $r=0.40$; Negative Attitudes and Fears/Doubts, $r=0.47$).

Confirmatory factor analysis. Confirmatory factor analysis was then used to assess how well the theorized factor structure fit with the data. Model fit was assessed using the Tucker-Lewis Index ($TLI > 0.95$), Comparative Fit Index ($CFI > 0.95$), standardized root mean squared residual ($SRMR \leq 0.08$), and the root mean squared error of approximation ($RMSEA \leq 0.06$) (Hu & Bentler, 1999). Ten items fitting 3 factors (“Positive Attitudes”, “Negative Attitudes”, and “Fears/Doubts”) compose the final version of the GAMS. The model appears to have excellent fit and is summarized in Table 7.

Reliability analyses. The internal consistency of the GAMS was determined by using inter-item correlations. Results revealed that $\alpha=.84$ for the GAMS items, showing good internal consistency.

Validity analyses. Results indicate that GAMS was moderately correlated to IMS ($r=.55, p<.001$) and to AMS ($r=.30, p<.001$). Subscale correlations ranged from $r=.04$ to $r=.61$ and are presented in Table 12. Overall, the correlations between the GAMS and the other two measures were moderate and indicate good construct validity for the GAMS. When compared to established measures, there are moderate correlations between the GAMS and the MAS ($r=.74, p<.001$) and the ATMS ($r=.70, p<.001$). The results also indicated that there is a low correlation between the GAMS and the LOTR ($r=.28, p<.001$), consequently proving good discriminant validity.

Aspects of Marriage Scale (AMS)

Exploratory factor analysis. A maximum likelihood method for factor analysis with an oblique rotation was used to assess the initial factor structure of the items for the AMS. Aspects of marriage has not previously been examined in the literature, thus correlations among items was used to determine whether or not there should be an oblique or orthogonal rotation. Missing data was replaced using maximum likelihood estimation with robust standard errors. The AMS items were written to reflect twelve separate factors assessing different domains of marriage including: trust, shared values, fulfillment, sexual intimacy, emotional support, respect, finances, romance, commitment, fidelity, communication and having children. This analysis revealed twelve major factors with an eigenvalue greater than 1. Overall, these AMS items accounted for 59.15% of the variance.

Factors that had fewer than three items were removed from the scale (Tabachnick & Fidell, 2001). Several factors did not meet this standard and were deleted prior to the confirmatory factor analysis. Table 8 shows each item's factor loading and Table 9

depicts factor correlations. Additionally, items with factor loadings over 0.32 on more than one factor were considered for removal from the final scale. After factor and item deletions, six factors and 23 items remained.

The first factor appeared to capture the expectation of “Romance” in a marital relationship. The second factor assessed mutual respect between partners, fidelity and communication; this appeared to examine the expectation of “Respect”. “Trust”, the third factor, was assessed by items which looked at trust, emotional support and commitment. The aspect of “Finances” was best captured by several items and was the fourth factor. “Meaning” was the fifth factor and captured by items examining one’s sense of personal fulfillment or the necessity of shared values between partners. Lastly, the sixth factor, “Physical Intimacy” was described by three items.

Confirmatory factor analysis. Confirmatory factor analysis was then used to assess how well the theorized factor structure fit with the data. Model fit was assessed using the Tucker-Lewis Index ($TLI > 0.95$), Comparative Fit Index ($CFI > 0.95$), standardized root mean squared residual ($SRMR \leq 0.08$), and the root mean squared error of approximation ($RMSEA \leq 0.06$) (Hu & Bentler, 1999). 23 items compose the final version of the AMS. The model appears to have good fit and is summarized in Table 10. (See Appendix B for items). Correlations between factors are reported in Table 11.

Reliability analyses. The internal consistency of the AMS was determined by using inter-item correlations. Reliability results revealed that $\alpha=.92$ for the AMS items, proving excellent internal consistency.

Validity analyses. Low to moderate correlations among the AMS, GAMS and IMS demonstrate adequate construct validity for the AMS. Results indicate that AMS

was moderately correlated to IMS ($r=.43, p<.001$) and to GAMS ($r=.30, p<.001$). Subscale correlations ranged from $r=.04$ to $r=.60$ and are presented in Table 12. The results indicated that there are moderate correlations between the AMS and the MAS ($r=.41, p<.001$) and the ATMS ($r=.30, p<.001$) and there is a low correlation between the AMS and the LOTR ($r=.25, p<.001$), proving there is good discriminant validity.

The Marital Scales

The Marital Scales are composed of three different scales, consists of a total of 36 items, rated on a 7-point Likert scale (0 to 6; ranging from strongly disagree to strongly agree). The IMS is composed of 3 items and is designed to measure intent to marry. The GAMS consists of 10 items and the AMS is comprised of 13 items; they measure general attitudes towards marriage and expectations for aspects of marriage. These marital scales are intended to be applicable for any individual regardless of marital status or sexual orientation. Scores range from 0 to 18 for the IMS, 0 to 60 for the GAMS and 0 to 138 for the AMS. Higher scores reflect more positive intent towards marriage for the IMS, more positive attitudes towards marriage for the GAMS, and more positive expectations for marriage for the AMS. The final versions of the IMS, GAMS and AMS can be found in Appendix B.

Discussion

The primary purpose of this study was to develop and validate several scales applicable to studying intent to marry, general attitudes towards marriage, and expectations for marital relationships. Results indicated that the measures demonstrate good psychometric properties.

Intent to marry has not been examined as a separate construct in the literature on marital attitudes. The strong psychometric properties of this scale serves as evidence that intent to marry should be evaluated as a distinct construct from positive or negative attitudes towards marriage. This is further supported by the low to moderate correlations seen amongst the IMS, GAMS and AMS scales and subscales. This implies that the IMS will provide a unique contribution to understanding the general concept of marital attitudes and expectations.

Contrary to what was expected from the literature, the results showed that the GAMS had a three-factor structure. Analyses depicted a third factor based on affect, specifically, fears and doubts about marital relationships. The current study proves that marital attitudes are not dichotomous as previously thought by scales like the MAS or ATMS. It would appear that affective items do not fit into the originally theorized dichotomous factor structure. Logically, affective items should not have a value of “positive” or “negative” placed on them, for individuals taking the measure could read the items for having fears or doubts about marriage differently. It could be a “negative” attitude because the participant is expecting the marriage to be unsuccessful, or it could be a “positive” attitude because the individual has an idea of the level of commitment the relationship would take to be successful. Fears/Doubts as a separate factor or an attitudinal component has not received much attention in the literature. Gabardi and Rosén (1992) composed items assessing for personal doubts about marriage, as well as, Braaten and Rosén (1998). In neither scale were fears and doubts examined as a separate factor; it was assumed that fears and doubts contributed to a negative disposition towards marital relationships.

Since there are no existing known or established measures for assessing one's expectations regarding aspects of marriage, the AMS was compared to the IMS and GAMS, as well as, the MAS and ATMS for known measures on marital attitudes. While other aspects factors examined the feelings of the two individuals in the relationship, it appeared that the aspect of Finances was more weakly correlated to the other factors. Perhaps, it was too concrete to be considered similar to the other constructs being measured by the marital scales. More research is needed on these constructs and should consider the possibility that research on marital attitudes could examine material expectations for the relationship, such as finances, neighborhood, home, etc.

Limitations and Directions for Future Research

There were several limitations in constructing the Marital Scales. The scales were constructed based on a sample of introductory psychology students. A new sample of data should be collected to verify the psychometric construction of these scales on other populations. Additionally, the current study collected one sample which was subsequently used to explore and to validate the factor structure, as well as, check reliability and validity of the new scale. A confirmatory factor analysis with new sample will help to make the instrument more psychometrically sound.

Implications and Conclusion

The purpose of the current study was to create a comprehensive instrument capable of assessing: intent to marry, positive attitudes, negative attitudes, affective attitudes, and attitudes for expectations for marriage. The Marital Scales consist of three measures: the IMS, GAMS, and the AMS. The results indicate that the three measures have good fit and psychometric properties. These scales are different from its

predecessors because it is a broad measure capable of assessing what previous measures assessed (such as, positive attitudes, negative attitudes and marital expectations) and what previous measures did not evaluate. This study revealed that intent to marry is an important concept to consider, as is holding affective attitudes towards marriage. These scales are not only a broad measure of marital attitudes, but they are also psychometrically sound. Most of the previous scales were not analyzed for their psychometric properties (Braaten & Rosén, 1998; Dunn, 1960; Gabardi & Rosén, 1991; Slosarz, 2002).

The Marital Scales are also an inclusive measure. Some previous measures were based on traditional gender roles (Dunn, 1960), or on already married couples (Cohen, 1985). The current measure was designed for use with any individual, regardless of gender, ethnicity, religion, sexual orientation, or marital status. The IMS, GAMS and AMS were designed to measure attitudes towards marital relationship in general, not one's own marital relationship. Thus, the instrument will help us to evaluate attitudes towards marital relationships on a systemic level.

Use of these scales will also help in gaining a more complete knowledge of how early experiences, such as divorce, could impact marital attitudes. Negative attitudes towards marriage are associated with risk-taking behaviors such as sexual activity, binge drinking, and marijuana use (Carroll et al., 2007; Willoughby & Dworkin, 2009). Understanding whether or not there is an affective component to those negative attitudes will help further our field in learning more about the effects of early experiences on the development of negative attitudes and fears or doubts.

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