Development of Pursuer-Distancer Movement Scale - Short Form (PDMS-SF)

David R. Chabot[1] & Heining Cham[1]

Abstract

The Pursuer-Distancer Movement Scale (PDMS) (Chabot, 1996) is a reliable and valid 36-item self-report measure of the interpersonal process between individuals in a committed relationship. Chabot and Liu (2015) employed principal component analysis to identify the components of the PDMS. Their results supported the 18-item pursuer subscale with five components and the 18-item distancer subscale with six components. The current study employed exploratory factor analysis on the PDMS items from 206 young adults in a serious relationship for at least one year. The study had two goals: to refine the dimensions of the pursuer and distancer subscales and to develop a short form of the measure. Results yielded the Pursuer-Distancer Movement Scale - Short Form (PDMS-SF). The pursuer subscale of the PDMS-SF had eight items reflecting two factors (communication-connectedness and change-flexibility). The distancer subscale of the PDMS-SF had nine items reflecting two factors (autonomous-connectedness and methodical-constancy). Results are discussed in the context of pursuer-distancer clinical literature and demand-withdraw research literature.

Keywords: pursuer-distancer, demand-withdraw, marital interaction, interpersonal process.

A major focus of contemporary clinical and research theories of close interpersonal relationships is what can be termed the pursuer-distancer or demand-withdraw interaction sequence between intimate partners (De Angelis, 2011).This interaction sequence involves one partner proactively initiating an interaction or discussion with varying degrees of command intensity, ranging from suggestion and request to demand, in order to connect with their partner. The other partner responds to the initiated behavior with different degrees of acceptance of the invitation, ranging from agreement and compliance, to refusal to connect. The behaviors are essential feature of the partners' efforts to engage in a process that maintains their relationship and conjointly solves issues of varying degrees of difficulty while maintaining a sense of self. The term pursuer-distancer is used to describe the interaction sequence under both non-stress and stress conditions (Fogarty, 1979).Withdraw-demand is the term used to describe the interaction under stress and conflictual conditions (Christensen, 1987).

Contemporary texts of couple and family therapy (e.g., Nichols, 1995) and extensive research and clinical publications (e.g., Wile, 2013) attest to the importance of this process. The dominant research methods to investigate this process in both distressed and non-distressed relationships are clinical observations made in therapy sessions (Guerin, Fay, Burden, & Gilbert-Kautto, 1987) and controlled observations in lab settings (Balderrama-Durbin, Allen, & Rhoades, 2012).In addition to observational methods, Chabot (1996) developed the Pursuer-Distancer Movement Scale (PDMS), a reliable and valid 36-item self-report measure that can be use dseparately or with observational methods to assess this process. Chabot and Liu (2015) used principal component analysis to identify the components in the pursuer and distancer subscales of the PDMS. Their results indicated multiple components on both subscales which were consistent with clinical theory and research observations on the pursuer-distancer process.

---

[1] Department of Psychology, Fordham University, Bronx, NY 10458, USA.

The current study employs exploratory factor analysis (EFA) to refine the dimensions of the pursuer and distancer subscales of the PDMS and to develop a short version of the measure.

The structure of the paper is as follows. First, we reviewed the historical developments of the pursuer-distancer process in the literature to demonstrate the importance of individual traits as well as specific interpersonal contexts to the process. Second, we reviewed the development of the original PDMS. Third, we described the methods and presented the results of this study. Fourth, we discussed the results in the context of the pursuer-distancer literature. Suggestions were made for employing the PDMS-SF in couple therapy and research studies.

Pursuer-Distancer Process

Attempt to understand the pursuer-distancer process has a long history in the literature (Watzlawick, Beavin, & Jackson, 1967).These efforts emphasized how personality traits of the individual, situational contextual conditions or combinations of both are related to the process. Early personality theorists identified specific traits related to the use of behaviors that individuals would use in the interpersonal process with their partner. Jung (1954) theorized that the "container" and the "contained" characterized the marital dynamic. The "container" (i.e., distancer) finds emotional security within self, while the "contained" (i.e., pursuer) finds security in the relationship. Thus, in the process between the partners, the "container" would have a tendency to move away from the partner, while the "contained" would have a tendency to move toward the partner. Horney (1945) theorized that successful marriages require a balance between "moving toward" (pursuer) and "moving away" (distancer) from one's partner in order to maintain a sense of self.

In the 1960s, many clinicians, while emphasizing a systematic interaction perspective, still considered individual characteristics important to fully understand the interaction process between the partners (Jackson, 1965).Fogarty (1979), who used the terms pursuer and distancer, indicated that in the process of dealing with a relationship, we simultaneously deal with the insides of each person in that relationship. Fogarty's use of the terms pursuer and distancer refers to individual predispositions to engage in pursuing and distancing behaviors as well as the act of engaging in those behaviors when in interaction with their partner. Fogarty stated that both men and women have pursuing and distancing tendencies, the manifestation of which depends not only on their predisposing traits but also on situational contextual conditions.

Further, he stated that while there is a tendency to label both men and women as either a pursuer or a distancer based on their dominantpre disposition, both can use either set of behaviors depending on circumstances in a given interaction. Fogarty's description of pursuer tendencies can be summarized under two major characteristics. First, the pursuer demonstrates a greater desire for togetherness which results in movement toward their partner to connect via verbal communication and emotional expression. Second, the pursuer has more anxious energy which results in a quicker paced interpersonal style, a greater need for change, and frequent attempt at initiating interaction with their partner. Fogarty's description of the predispositions of the distancer also can be summarized under two characteristics. First, the distancer's style is more autonomous and self-contained which manifests itself in a desire to limit communication and avoid emotional expression in his/her relationship with their partner. Second, the distancer has a slower and more cautious interpersonal style that is accompanied by a propensity for rationality and a greater resistance to change.

Expanding Fogarty's work, Guerin (1982) developed an interaction sequence between partners that relates to the level of stress experienced in the relationship. In a low stress environment there is a synchrony or balance between the operating styles of the couple. Either partner may initiate a pursuing behavior with low command intensity (e.g., suggestion or request) which can be met with acceptance (agreement) by the other partner. The initiating behavior at this level of stress does not usually result in setting off distancing behavior from the partner, largely because their sense of self is not threatened by the partner's initiation. They have more flexibility to respond adaptively and connect. Under high stress conditions partners are less flexible. During high stress conditions individuals produce more extreme behaviors, seeking greater connection or greater separateness depending on their preferred style to calm their insides. If a partner under stress initiates an interaction, it will probably involve demand behaviors. If the other partner also is experiencing stress they will likely respond with withdraw behaviors if that is their preferred style used to regain calmness. Partners are moving in opposite directions with increased intensity of invitation to connect and increased intensity to separate.

The lack of connection between partners under stress conditions is due to an interaction of inherent predisposing differences and contextual conditions of the exchange. Napier's (1978, 1999) clinical observation made in his work with couples is consistent with those of Fogarty and Guerin.

In addition, he indicated that when one engages in strong pursuing behavior he/she is motivated by a fear of rejection and being left alone, and therefore seeks frequent and intense connection. On the other hand, when one engages in strong distancing behavior she/he is motivated by a fear of being engulfed in a relationship and losing a sense of self. Since the 1980s, there has been emphasis on studying the interaction process of partners in a relationship under controlled settings. These studies focused on the escalating negative interaction process under stress conditions where there is a failure to connect (Christensen &Sullaway, 1984).The terminology most frequently used to describe the interaction process in these studies has been demand-withdraw rather than pursuer-distancer. The term demand-withdraw describes extreme and opposing interactions of a relationship pattern that is destructive both for the relationship and the individuals. Often, demand behavior is operationalized by observations of pressure for change, criticism, blame, and accusation; while withdraw behavior has been operational zed by observations of avoidance, refusal to discuss or cooperate, and silence. Many lab study results are consistent with the clinical observations of couples' pursuer-distance process, especially those reported by Fogarty (1979).Eldridge, Sevier, Jones, Atkins, and Christensen (2007) found that, while both male and female partners employ demand and withdraw behaviors, the typical female-demand /male-withdraw pattern was more frequent in the distressed group.

In the non-distressed group there was no significant gender demand pattern, but a more flexible use of both pursuing and distancing behaviors employed by both partners. These results demonstrate not only the relevance of stress on the demand-withdraw or pursuer-distancer process, but also attests to the fact that both males and females have both pursuing and distancing tendencies that can be constructively employed for connection under non-stress conditions. In addition, some lab studies support Fogarty's clinical observation that pursuing and distancing behaviors are, in part, activated by contextual conditions. McGinn, McFarland and Christensen (2009) reported that demand-withdraw behaviors shift between partners depending on whose issue is under discussion. Sanford (2003) demonstrated that the seriousness of the issue being discussed to an individual partner is related to that partner's use of demand behavior. The more a partner believes that an issue is serious, the more he/she will employ demand behaviors. While these contextual conditions may be associated with the use of demand behaviors, the degree to which a partner has a predisposition to use demand behaviors may moderate or mediate the reported relationship between seriousness of an issue and demand behavior.

Besides contextual conditions, lab studies have supported that individual predisposing factors are important in the demand-withdraw process, Baucomand colleagues (2015) have reported the connection between each partner's emotional reactions and their demand-withdraw behaviors. Their finding suggests that both intra- and inter-personal pathways link demand-withdraw behaviors. Barry and Lawrence (2013) found a link between a partner's avoidant attachment style and their use of disengaging and avoidant (withdraw) behaviors during conflictual interactions. This result is consistent with reports that pursuing and distancing behavior is, in part, related to predisposing traits of the individual. It is also consistent with Napier's observation that distancers tend to limit the amount of connection out of a fear of intimacy and a loss of sense of self. Rentscher, Rohrbaugh, Shoham, and Mehl (2013) reported that spouses who use more "we-talk" relative to the use of "I-talk" tended to assume the demand role overall in demand-withdraw communications. This is consistent with the clinical literature that pursuers are more relationship oriented than distancers (Fogarty, 1979).

Development of Pursuer-Distancer Movement Scale (PDMS)

As an addition to clinical and lab observations, Chabot (1996) developed the Pursuer-Distancer Movement Scale (PDMS) to measure the pursuer-distancer process of a couple. The PDMS contains 36 items of different behaviors exhibited by individuals in a committed relationship with their "significant other" or "special relationship partner" under stress and non-stress conditions. There are two subscales: pursuer and distancer. The pursuer subscale contains 18 items including "during personal time with my partner I tend to be the one who initiates conversation". The distancer subscale has 18 items including "when I am upset about something I pull back from my partner, think more, and become more cautious". Item content deals with behaviors exhibited toward their partner under specific interpersonal conditions as well as overall interactional style preferences. Responses are made on a six-point Likert scale ranging from zero (not at all characteristic) to five (totally characteristic).

Chabot and Liu (2015) reported on ten studies with a cumulative sample of 739 conducted by Chabot and colleagues on the psychometric properties of the PDMS. Both subscales showed satisfactory reliabilities (pursuer: α= .74-.83; test-retest reliability over one week: r = .91; distancer: α= .74- .77; test-retest reliability over one week: r = .79).

Satisfactory predictive and construct (convergent and discriminant) validities were obtained in all ten studies. The pursuer subscale had significant positive correlations with measures of social extraversion, emotional engagement coping style, anxious attachment, and stereotypic feminine traits (e.g., intimacy, empathy, and emotionality).The pursuer subscale was negatively correlated with avoidant attachment, and stereotypic masculine traits (e.g., autonomy).The distancer subscale had significant positive correlations with multiple measures of social introversion, emotional disengagement coping style, avoidant attachment, and stereotypic masculine traits (e.g., autonomy).The distancer sub scale correlated negatively with social extraversion and emotional behaviors (e.g., empathy and reliance on others).

Chabot and Liu (2015) also investigate the dimensionality of the pursuer and distancer subscales using a sample of 206 undergraduates and graduate students via principal component analysis with varimax rotation. Based on the criterion for retaining factors with eigen values> 1.0, five and six components were concluded for the pursuer and distancer subscales, respectively. The components were consistent with Fogarty's description of behaviors exhibited by pursuers and distancers. Both subscales showed satisfactory reliabilities (pursuer subscale: α= .77; distancer subscale: α= 76) consistent with previous studies.

Objective of the Present Study

The current study aims to develop a short form of the PDMS, termed the Pursuer-Distancer Movement Scale-Short Form (PDMS-SF).A short form allows researchers and clinicians to use the measure without making the procedure excessively long and time-costly (Smith, McCarthy, & Anderson, 2000).Another goal of the study is to refine the dimensionality of the PDMS-SF. In the five-factor result of the original PDMS pursuer subscale, seven items cross-loaded on two or more factors[2] (difference of the loadings between pairs of factors < .20).One factor only has two items with loadings > .40 in magnitude. In the six-factor result of the distancer subscale, seven items cross-loaded on two or more factors. Two factors only have two items with loadings > .40 in magnitude. One item had no loadings> .40.These factor loading patterns may prevent researchers from understanding and utilizing these factors in the two subscales. As such, there is a need to refine the dimensionality of the PDMS.

Method

Participants and Procedures

A total of 206 undergraduate and graduate students at least 18 years of age were recruited from a medium size university in the northeast United States. There were 150 females (73%) and 56 males (27%).All participants were in an intimate relationship with their partner for at least one year. None of the participants had any children. Ethics approval for the study was obtained from the authors' university institutional review board. All participants signed the consent forms. Participants were informed that they were participating in the development of a measure that assessed relationship behaviors and were administered a demographic form and the PDMS. Data were collected in small groups over several weeks. Some of the participants received course credit for their involvement in the research.

Scale Development and Procedures

Purser-Distancer Movement Scale - Short Form (PDMS-SF) is developed based on the original 36-item self-report PDMS. These 36 items were selected from the initial pool of 46 items that reflected typical behaviors exhibited by pursuers and distancers as they interacted with each other. Through the examination of these items by senior family therapists and analyses of the subscales' reliabilities, 18 items for the pursuer subscale and 18 items for the distancer subscale were retained. Participants respond to the items based on how they act in the intimate relationship using six-point Likert scale ranging from 0 (not at all characteristic) to 5 (totally characteristic). Other details of PDMS are discussed previously and are referred to Chabot (1996) and Chabot and

---

[2] Technically speaking, principal component analysis extracts components but not factors. Component is a variable which is caused by weighted sum of items but not factors. Factor is defined as a variable which is the cause of the items. To avoid the abuse of terminologies, we used components and factors interchangeably in this paper.

Liu (2015). In this study we sought to develop the PDMS-SF with (a) fewer number of test items, (b) minimal cross-loadings of items, (c) at least three items on each factor, and (d) satisfactory reliability and validity of the pursuer and distancer subscales.

We believed that these criteria would make the PDMS-SF potentially more useful for clinical and research applications. Analysis of the responses on the 36-item PDMS was made using parallel analysis and exploratory factor analysis (EFA).

Results

In the analyses, three participants have missing values on some items and they were discarded in the analyses. All analyses were conducted using R version 3.3.1(R Core Team, 2016). Parallel analysis was conducted using R package "nFactors" version 2.3.3 (Raiche & Magis, 2011). Exploratory factor analysis (EFA) was conducted using R package "psych" version 1.6.6 (Revelle, 2016).

Parallel Analysis

Parallel analysis (Horn, 1965) was used to aid determining the number of factors to be obtained in EFA. When developing PDMS, the criterion used to determine the number of factors (retaining components with eigen value > 1.0) often leads to retaining too many factors than the true model (Fabrigar, Wegener, MacCallum, & Strahan, 1999). This may explain the cross-loadings and few numbers of items in some factors in the PDMS results. On the contrary, parallel analysis is advantageous to obtain correct number of factors (Fabrigar et al., 1999; Zwick & Velicer, 1986). We analyzed the18 items of the pursuer subscale and 18 items of the distancer subscale separately. We used the eigen values taken from the 95th percentiles of 2,000 permutated samples with the same size as the original sample. Figures 1 and 2 show the screen plots and parallel analysis for the pursuer and distancer subscales. For the pursuer subscale, the eigen values of the sample and those of the parallel analysis intersected at the fourth factor, suggesting that a maximum of four factors should be obtained. For the distancer subscale, the eigenvalues of the sample and those of the parallel analysis intersected at the fourth factor, suggesting that a maximum of four factors should be obtained.

Exploratory Factor Analysis (EFA)

EFA was conducted using principal axis factoring. de Winter and Dodou's (2012) simulation study shows that principal axis factoring is preferable to obtain true model across various situations. Oblimin oblique rotation method was used. Based on the results of parallel analysis, we tested one- to four-factor models for the pursuer and distancer subscales separately. In order to achieve our goals of PDMS-SF, we conducted EFA iteratively to eliminate items and refine the dimensionality using the following criteria: (a) retaining items with factor loadings ≥ .30 on any factors, (b) removing items with cross-loadings (difference of the loadings between pairs of factors ≤ .20), (c) discarding factors with fewer than three items with loadings ≥ .30. For the pursuer subscale, the resulting model had two factors with eight items retained. This two-factor model showed satisfactory fit to the sample data, with root mean square error of approximation (RMSEA) = .05 (≤ .10 was suggested as acceptable fit; Browne &Cudeck, 1993).

Table 1 shows the factor loading patterns of the resulting two-factor model. No remaining items had cross-loadings. The first factor had five items with factor loadings ≥ .30, such as "it gets me more upset when my partner won't talk to me when we have a problem" and "when I am in conflict with my partner I need to talk to him/her even if I am not sure of my thoughts or feelings on the issue". The first factor indicates the pursuer's need for connection with their partner via verbal communication and emotional expression. The second factor had three items with factor loadings ≥ .30, such as "during personal time with my partner I tend to be the one who initiates conversation" and "even when the routine between my partner and myself is going well I like to discuss potential changes we can make in our relationship". The second factor indicates pursuer's need to monitor the relationship and make changes. The first and second factors were termed communication-connectedness and change-flexibility, respectively. These results were consistent with Fogarty's (1979) theory.

Table 1: Factor Loadings for the Pursuer Subscale

Item	Content	Factor 1	Factor 2
1	During personal time with my partner I tend to be the one who initiates conversation.	.05	**.34**
2	I don't like to leave an argument until I have resolved my differences with my partner.	**.49**	.00
3	When my partner is emotionally upset I tend to quickly move toward him/her to fix the problem by giving emotional support.	**.54**	-.21
4	It gets me more upset when my partner won't talk to me when we have a problem.	**.44**	-.07
5	When I am upset the most helpful thing for me is to express my feelings to my partner.	**.72**	.03
6	When I am in conflict with my partner I need to talk to him/her even if I am not sure of my thoughts or feelings on the issue.	**.54**	.21
7	My style with my partner is to be vigilant for potential problems between us and to move on them quickly before they get out of control.	.13	**.33**
8	Even when the routine between my partner and myself is going well I like to discuss potential changes we can make in our relationship.	.00	**.62**

Note: Bold represents highest loading for each item.

Also, both factors contained items that measures behaviors across stress and non-stress conditions in the relationship. The correlation between the two factors was $r = .24$. The refined pursuer subscale had satisfactory reliability, Cronbach's $\alpha = .61$. Cronbach's α of the communication-connectedness and change-flexibility factors were .67 and .41, respectively. As an indirect support of the validity of the refined pursuer subscale, the correlation between the composite scores of the refined eight-item subscale and that of the original 18-item subscale was high, $r = .87$. In addition, the correlations of the composite scores of communication-connectedness and change-flexibility factors and that of the original 18-item subscale were $r = .73$ and .61, respectively. For the distancer subscale, the resulting model had two factors with nine items retained. This two-factor model showed acceptable fit to the sample data, with RMSEA = .10.

Table 2: Factor Loadings for the Distancer Subscale

Item	Content	Factor 1	Factor 2
1	I like to solve problems by myself and then give the solution to my partner.	**.53**	-.02
2	When I am upset I find that most of my energy goes into trying to clarify my thinking on the issues.	.18	**.29**
3	When I am upset about something I pull back from my partner, think more, and become more cautious.	**.48**	.27
4	I prefer a slow and methodical approach to resolving conflict with my partner rather than a rapid "shotgun" approach.	-.08	**.63**
5	Before I say something that may hurt my partner, I "filter" it thoroughly and choose my words carefully.	.07	**.47**
6	It bothers me when my partner repeats himself/herself in our arguments.	**.47**	-.04
7	I believe that arguments are best settled when there is a time limit placed on the discussion before you begin.	**.48**	.05
8	I become irritated when my partner brings up his/her complaints too frequently.	**.65**	-.12
9	Often with my partner I feel that it is best to leave our problems alone and just live with our differences.	**.33**	.02

Note: Bold represents highest loading for each item.

Table 2 shows the factor loading patterns of the resulting two-factor model. It is noted that item 2 ("when I am upset I find that most of my energy goes into trying to clarify my thinking on the issues") only had loading = .29 on factor 2 and it was cross-loaded on factor 1 (loading = .18). We decided to retain this item in order to have three items loaded on factor 2. The first factor had six items without cross-loadings, such as "I like to solve problems by myself and then give the solution to my partner" and "when I am upset about something I pull back from my partner, think more, and become more cautious". The first factor indicates the distancer's tendency for independent analysis for problem solving and, therefore, limited conversation with their partner. The second factor had three items without cross- loadings, such as "I prefer a slow and methodical approach to resolving conflict with my partner rather than a rapid 'shotgun' approach" and "before I say something that may hurt my partner, I 'filter' it thoroughly and choose my words carefully".

The second factor indicates distancer's preference for a slow and methodical approach to conflict resolution (logic/rationality) rather than emotional venting. The first and second factors were termed autonomous-connectedness and methodical-constancy, respectively. Again, these results were consistent with Fogarty's (1979) theory. Both factors contained items that measures behaviors across stress and non-stress conditions in the relationship. The correlation between the two factors was $r = -.01$. The refined distancer subscale had satisfactory reliability, Cronbach's $α = .60$. Cronbach's $α$ of the autonomous-connectedness and methodical-constancy factors were .65 and .42, respectively. As an indirect support of the validity of the refined distancer subscale, the correlation between the composite scores of the refined nine-item subscale and that of the original 18-item subscale was high, $r = .90$. In addition, the correlations of the composite scores of autonomous-connectedness and methodical-constancy and that of the original 18-item subscale were $r = .84$ and .40, respectively

Discussion

Pursuer-distancer interaction is an essential process between partners that manifests itself over the length of the relationship on a daily basis. The process extends over non-stress and stressful conflictual exchanges in the relationship. Much of the research on the pursuer-distancer process has been conducted using observational methods in lab settings where the conditions were stressful. While these methods have been effective in providing an objective assessment of the process under specific stress conditions they also have limitations. First, it can be costly to train raters to an acceptable level of inter-judge reliability. Second, the results of lab studies may have poor ecological validity (Heyman, 2011).In addition; it is well known that data collected from multiple sources, using multiple methods, provide a more comprehensive understanding of a phenomenon. Self-report measures help to overcome some of these limitations.

The most frequently used self-report measure on the pursuer-distancer process is the Communication Pattern Questionnaire (CPQ) developed by Christensen and Sullaway (1984) who based their item selection on the theories of Fogarty (1979), Gottman (1979), and Petersen (1983).Christensen and Heavey (1990) developed an 11-item condensed version, the Communication Pattern Questionnaire- Short Form (CPQ-SF; see Futris et al., 2010 for a review).There are substantial differences between the CPQ-SF and the PDMS-SF. The instructions for taking the CPQ-SF ask individuals to describe the behaviors between themselves and their partner "when issues or problems arise". These instructions, therefore, ask the participants to report behavior when there is some degree of stress present. No provision to tapnon-stress behaviors is made either in the instructions or in the content of the items of the CPQ-SF. The focus on stress conditions in the CPQ-SF makes it a more important measure to study the demand-withdraw process than the pursuer-distancer process.

The literature has clearly indicated that the interaction between partners is substantially different under stress and non-stress conditions. In contrast to the CPQ-SF, the PDMS-SF instructions do not specify stress or non-stress conditions for reporting behavior. Rather, partners are asked simply to answer questions on the behavior between themselves and their partner. The content of the items of the PDMS-SF indicates both the stress and non-stress conditions. Both factors on both of the subscales of the PDMS-SF contain items that pertain to stress and non-stress conditions. This makes the information obtained from the PDMS-SF potentially helpful to understand the pursuer-distancer process across a wide range of stress conditions. The items of the CPQ-SF and the PDMS-SF are also different.

The CPQ-SF asks partners to use a nine-point Likert scale to rate their interaction behaviors on the specific categories of criticism, nagging, and blame(demand behaviors),and avoidance, silence, and refusal (withdraw behaviors).An example is the following: "when issues or problems arise how likely is it that both spouses avoid discussing the problem". These categories are identical to the categories used in the observational rating methods and are descriptions of behavior at the extreme end of the pursuer-distancer process (i.e., demand-withdraw).While two different sources of data are being obtained from the CPQ-SF and observational methods, the data are not substantially different. In contrast, items of the PDMS-SF provide the connection between specific contextual conditions and pursuing and distancing behavior that are important for researchers to understand the process. Another important difference between the items of the CPQ-SF and PDMS-SF is that the items of the PDMS-SF connect partner's pursuing and distancing behaviors with his/her predisposing traits.
On the other hand, the CPQ-SF does not attempt to measure the contributions of individual predisposing traits, but only focuses on the interpersonal behavior between the partners. Not surprisingly, given the differences in items between the CPQ-SF and the PDMS-SF, there is a difference in the dimensionality of the two measures.

Christensen and Heavey (1990) concluded that the CPQ-SF has a two-factor structure consisting of positive interactions and demand-withdraw. Futris, Campbell, Nielsen, and Burwell (2010) provided a three-factor structure of the CPQ-SF that consisted of the positive interaction factor and a division of the demand-withdraw factor into conflict-engaging behaviors (i.e., criticism-defend) and conflict-avoiding behaviors (i.e., demand-withdraw).

The dimensionality of the CPQ-SF contrasts with the factors identified in the PDMS-SF in the current study. There were two factors on both the pursuer and the distancer subscales of the PDMS-SF. The factors of the pursuer subscale are communication-connectedness and change-flexibility. The factors of the distancer subscale are autonomous-connectedness and methodical-constancy. These factors are consistent with the clinical observations of Fogarty's theory on the pursuer-distancer process. Behaviors reflecting degree of involvement in the relationship between the partners ease of wanting and accepting change, and differences in emotional and rational style are present both in the PDMS-SF and the clinical literature on the pursuer-distancer process. The Cronbach's *a*s of the PDMS-SF are comparable with those reported by Futris and colleagues (2010) on 21 studies that used either the CPQ or the CPQ-SF.

Clinical Considerations

Often when partners begin marital therapy it is only after they have been experiencing considerable stress and they are polarized in their interaction either with intense anger or cold silence. As such, their interaction is typical of the demand-withdraw process. A first task for the therapist is to lower the stress level of the couple, and address the extreme pursuing and distancing behaviors inherent in their interaction. However, at this point each partner is strongly committed to their preferred interaction style and has an under-appreciation of their partner's style. Neither of them can see the value of their partner's style; both of them believe that their way of addressing their issue is the only correct way. Each individual is heavily committed to continuing to employ their respective style of relating in order to solve the issue, and believes that their partner's way is counter-productive. The partner who is pursuing is thinking: "there is something wrong with this person; if they would only talk to me we could solve this issue". The distancing partner is thinking: "why is this person not leaving me alone so I can figure out the solution to this issue". Both partners need to learn that both of them have pursuer and distancer behaviors that can be used constructively under less stressful conditions. However, under the current stress level these behaviors have become extreme, the process between them is polarized and they are unaccepting of their partner's behavior. In addition, they need to see the need to not engage in polarizing styles as they try to solve an issue in order to lower the stress level. To accomplish these goals, it is helpful for the partners to produce an objective measure of their interaction process.

A useful technique that therapists can use to help accomplish this is to have both partners take the PDMS-SF twice with different directions, once under standard conditions where they provide a report on their own behaviors, and again where they answer the questions as they think their partner is answering. A review of the differences between one partners's self-report and their partner's perceived report of their answers can be a starting point to teach about the pursuer-distance process. By looking at the total pursuer subscale score and total distancer subscale score partners realize that they have both tendencies.

This realization can be helpful to counter the bias that each partner has about the merit of their own style and their opposition to their partner's style. When partners see that they have a pursuer and a distancer score on the PDMS-SF they are more accepting of both styles. Partners who have learned about the pursuer- distancer process can more readily modify their respective behaviors to be more connected on the issue. Pursuers can allow distancers time to think about the issue. Distancers can make themselves available for continued conversation once they have had time to think about the issue. A review of very discrepant answers to specific questions from each partner can identify areas of the relationship that require particular help from the therapist.

Limitations and Future Directions

There are several limitations two of the current study. First, although the Cronbach's αs of the pursuer subscale, the communication-connectedness factor in the pursuer subscale, the distancer subscale, and the autonomous-connectedness factor in the distancer subscale of the PDMS-SF were satisfactory ($\geq$ .60); those of the change-flexibility factor in the pursuer subscale and the methodical-constancy factor in the distancer subscale were not (~ .40). These two factors need to be used with cautions of low reliability.

The low reliabilities of these two factors can be improved by adding relevant and reliable items into PDMS-SF. Second, we did not measure other constructs besides the PDMS in this sample that would allow us to obtain direct measures of the validity of the PDMS-SF. We could only provide indirect support of validity by the strong correlations between the subscale scores of PDMS-SF with the original subscale scores of PDMS (rs ≥.85).

Since Chabot and Liu (2015) found satisfactory criterion-related validities of the pursuer and distancer subscales of the PDMS, we expect these two subscales in PDMS-SF also have satisfactory criterion-related validities. Nevertheless, research is needed to investigate the validity of PDMS-SF (Smith et al., 2000). Third, the sample consists of only undergraduate and graduate students, who were in a seriously committed relationship for a relatively short period of time. They might not have experienced a lot of stressors, such as finance, unemployment, and pregnancy, during their intimate relationship. These stressors, especially when there are clustered in the same time period, significantly impact the process between a couple (Guerin et al., 1987).There is a need to study couples who have been committed to one another for longer periods of time and who have experienced more stress in their relationship to more completely understand the psychometric properties of the PDMS-SF.

Reference

Balderrama-Durbin, C. M., Allen, E. S., & Rhoades, G. K. (2012). Demand and withdraw behaviors in couples with a history of infidelity. *Journal of Family Psychology*, *26*, 11-17. http://dx.doi.org/10.1037/a0026756

Barry, R. A., & Lawrence, E. (2013). "Don't stand so close to me": An attachment perspective of disengagement and avoidance in marriage. *Journal of Family Psychology*, *27*, 484-494. http://dx.doi.org/10.1037/a0032867

Baucom, B. R., Dickenson, J. A., Atkins, D. C., Baucom, D. H., Fischer, M. S., Weusthoff, S., Hahlweg, K., & Zimmermann, T. (2015). The interpersonal process model of demand/withdraw behavior. *Journal of Family Psychology*, *29*, 80-90.http://dx.doi.org/10.1037/fam0000044

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.

Chabot, D.R. (1996).*Pursuer-Distancer Movement Scale*. Unpublished manuscript, Fordham University, New York, NY.

Chabot, D. R., & Liu, Y. (2015). Development and Psychometric Properties of Pursuer-Distancer Movement Scale. *Journal of Psychology and Behavioral Science*, *3*(1), 13-23.http://dx.doi.org/10.15640/jpbs.v3n1a2

Christensen, A. (1987). Detection of conflict patterns in couples. In K. Hahlweg& M. J. Goldstein (Eds.), *Understanding major mental disorders: The contribution of family interaction research* (pp. 250-265). New York, NY: Family Process Press.

Christensen, A., & Heavey, C. L. (1990). Gender and social structure in the demand/withdraw pattern of marital interaction. *Journal of' Personality and Social Psychology*, *59*, 73-81.http://dx.doi.org/10.1037/0022-3514.59.1.73

Christensen, A.,& Sullaway, M. (1984).*Communication Patterns Questionnaire*. Unpublished questionnaire, University of California, Los Angeles, CA.

de Winter, J. C., & Dodou, D. (2012). Factor recovery by principal axis factoring and maximum likelihood factor analysis as a function of factor pattern and sample size. *Journal of Applied Statistics*, *39*, 695-710. http://dx.doi.org/10.1080/02664763.2011.610445

DeAngelis, T. (2011). The couples doctor. *Monitor on Psychology*, *42*(1), 46. Retrieved from http://www.apa.org/monitor/2011/01/christensen.aspx

Eldridge, K. A., Sevier, M., Jones, J., Atkins, D. C., & Christensen, A. (2007). Demand-withdraw communication in severely distressed, moderately distressed, and no distressed couples: rigidity and polarity during relationship and personal problem discussions. *Journal of Family Psychology*, *21*, 218-226.http://dx.doi.org/10.1037/0893-3200.21.2.218

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999).Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*, 272-299. http://dx.doi.org/10.1037/1082-989X.4.3.272

Fogarty, T. (1979).The distancer and the pursuer. *The Family*, *7*(1), 11-16.

Futris, T.G., Campbell, K., Nielsen, R.B., & Burwell, S.R. (2010).The Communication Patterns Questionnaire-Short Form: A review and assessment. *The Family Journal: Counseling and Therapy for Couples and Families*,*18*,275-287.http://dx.doi.org/10.1177/1066480710370758

Gottman, J. M. (1979). *Marital interaction: Experimental investigations*. New York, NY: Academic Press.

Guerin, P. J. (1982). The stages of marital conflict. *The Family*, *10*(1), 15-26.

Guerin, P. J., Fay, L. F., Burden, S. L., & Gilbert-Kautto, J. (1987).*The evaluation and treatment of marital conflict: A four-stage approach*. New York, NY: Basic Books.

Heyman, R.E. (2001)Observation of couple conflicts: Clinical assessment applications, stubborn truths, and shaky foundations. *Psychology Assessment*, *13*, 5-35.http://dx.doi.org/10.1037/1040-3590.13.1.5

Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, *30*, 179-185. http://dx.doi.org/10.1007/BF02289447

Horney, K. (1945). *Our inner conflicts: A constructive theory of neurosis*. New York, NY: Norton & Company.

Jackson, D.D. (1965).Family rules: Marital quid pro quo. *Archives of General Psychiatry*, 12, 589-594. http://dx.doi.org/10.1001/archpsyc.1965.01720360061010

Jung, C.G. (1959).Marriage as a psychological relationship. In V.S. deLaszlo (Ed.), *The basic writings of C.G. Jung* (pp. 531-544). New York, NY: Random House.

McGinn, M. M., McFarland, P. T., & Christensen, A. (2009). Antecedents and consequences of demand/withdraw. *Journal of Family Psychology*, *23*, 749-757. http://dx.doi.org/10.1037/a0016185

Napier, A. (1978). Therejection/intrusionpattern: A central family dynamic. *Journal of Marriage and Family Counseling*, *4*(1), 5-12.http://dx.doi.org/10.1111/j.1752-0606.1978.tb00491.x

Napier, A. Y. (1999). Experiential approaches to creating the intimate marriage. In J. Carlson &L. Sperry (Eds.), *The intimate couple*(pp. 298-327). New York, NY: Routledge.

Nichols, M. P. (1995). *The lost art of listening*. New York, NY: Guilford.

Peterson, D.R. (1983).Conflict.In H. H. Kelley, E. Bersheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson (Eds.), Close relationships (pp. 360-396). New York, NY: Freeman and Company.

R Core Team. (2016). R: A language and environment for statistical computing. Vienna, Austria: R Foundation for Statistical Computing. Retrieved August 24, 2016, from http://www.R-project.org/

Raiche, G., &Magis, D. (2016).*n Factors: Parallel Analysis and Non Graphical Solutions to the Cattell Scree Test*. (R package version 2.3.3). [Computer software]. Retrieved August 24, 2016, from https://cran.r-project.org/web/packages/nFactors/index.html

Rentscher, K. E., Rohrbaugh, M. J., Shoham, V., &Mehl, M. R. (2013). Asymmetric partner pronoun use and demand-withdraw interaction in couples coping with health problems. *Journal of Family Psychology*, *27*, 691-701. http://dx.doi.org/10.1037/a0034184

Revelle, W. (2016).*psych: Procedures for Psychological, Psychometric, and Personality Research*. (R package version 1.6.6).[Computer software]. Retrieved August 24, 2016, from https://cran.r-project.org/web/packages/psych/index.html

Sanford, K. (2003).Problem-solving conversations in marriage: Does it matter what topics couples discuss? *Personal Relationships*, *10*, 97-112.http://dx.doi.org/10.1111/1475-6811.00038

Smith, G. T., McCarthy, D. M., & Anderson, K. G. (2000).On the sins of short-form development. *Psychological Assessment*, *12*, 102-111.http://dx.doi.org/10.1037/1040-3590.12.1.102

Watzlawick, P., Beavin, J. B. & Jackson, D. D. (1967).*Pragmatics of human communication: A study of interactional patterns, pathologies, and paradoxes*. New York, NY: Norton& Company.

Wile, D.B. (2013).Opening the circle of pursuit and distance. *Family Process*, *52*, 19-32. http://dx.doi.org/10.1111/famp.12004

Zwick, W. R., & Velicer, W. F. (1986).Comparison of five rules for determining the number of components to retain. *Psychological Bulletin*, *99*, 432-442. http://dx.doi.org/10.1037/0033-2909.99.3.432
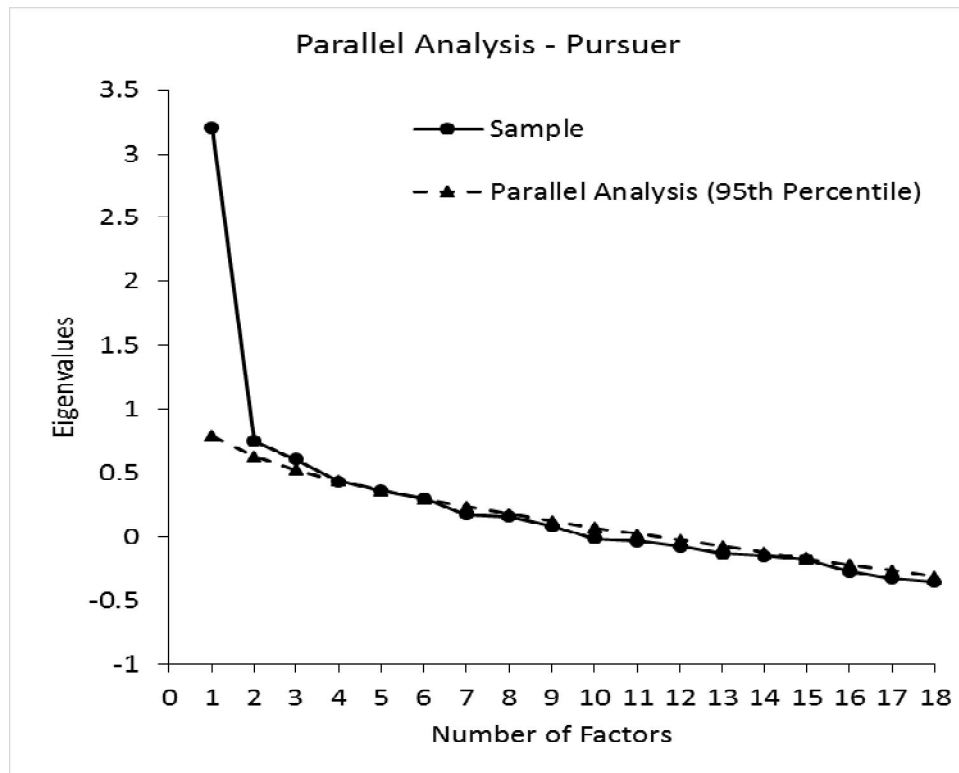
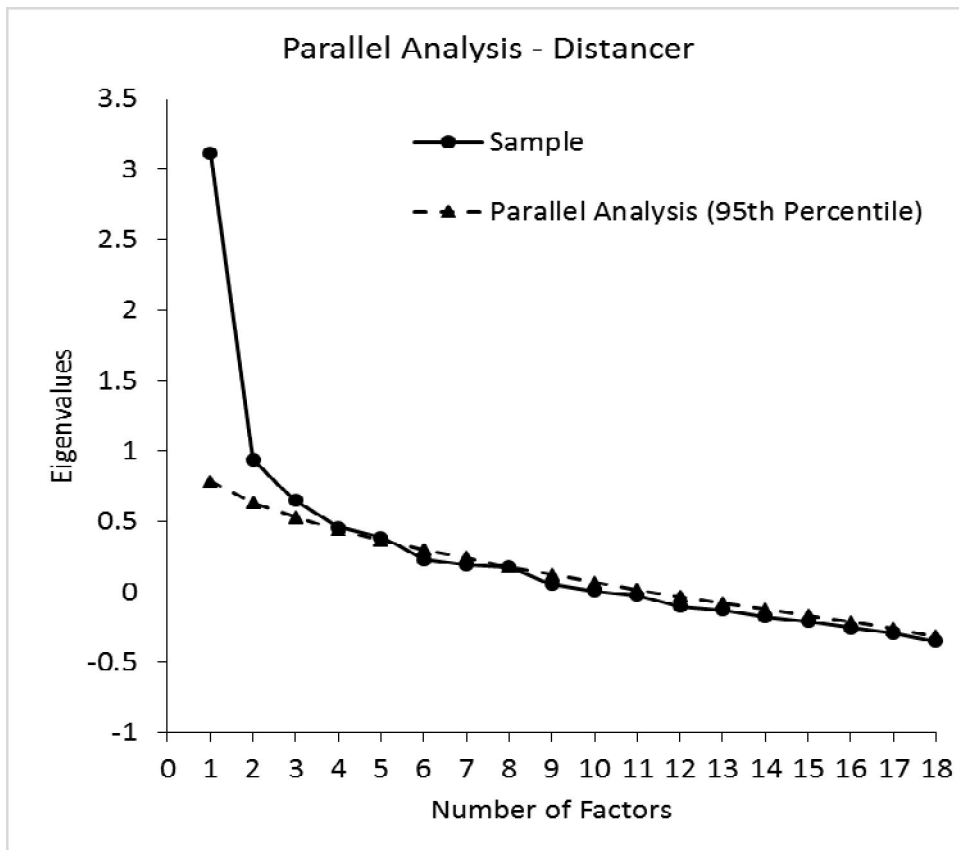**Figure 1: Scree plot and parallel analysis of pursuer subscale.**

Figure 2: Scree plot and parallel analysis of distancer subscale.