

Develop a Persian version of Interpersonal Problems (IPC) in Iranian Couples

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Abstract

This study aimed at to examine structural validity of Interpersonal Circumplex (IPC) in Iranian couples. A sample of 150 couples responded self-report and Spouse-report IPC. Randomization test of hypothesised ordered relations showed proper fit for the structure of IPC ($CI > 0.70$; $P < 0.001$). No significant difference was showed between Ir and US sample ($CI = -0.02$; $P = 0.68$). Men and women reported their-selves and their spouse's interpersonal problems in the same manner in according to circumplex structure of IPC ($CI = -0.08$; $P = 0.99$; for both). Results added to cross-cultural supports of IPC structural validity. Some suggestions were discussed.

Keyword: Interpersonal Circumplex, IPC Validation, Iranian Couples,

1. Introduction

Interpersonal circumplex is a confirmed system that can be used for validating measures of interpersonal constructs. This constructs, for example include interpersonal traits (Wiggins, 1979; Wiggins, Phillips, & Trapnell, 1989) and problems (Alden, Wiggins, & Pincus, 1990; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). It function as a guiding framework for assessing and interpreting interpersonal issues (Gurtman, 1992).

1.1. Interpersonal circumplex (IPC)

Affiliation and control are two broad dimensions of the Interpersonal circumplex (IPC; Kiesler, 1983; Pincus & Ansell, 2003), which can explain personality characteristics and features of the social environment of which relationship qualities and social support are some examples (Gallo & Smith, 1999; Trobst, 2000). For the examination of interpersonal dimensions, the most known model employed is the Interpersonal Circumplex (Markey & Markey, 2009). The practicality of IPC in classifying, understanding and evaluating of interpersonal behavior, motives and personal characteristics has been investigated and proved (Wiggins, 2003). The comprehensive structural model represented by IPC model is employed to help understanding and evaluating interpersonal dispositions in adults (e.g., Horowitz, Wilson, Turan, Zolotsev, Constantino, & Henderson, 2006; Wiggins, 1979). This model is made of horizontal axis which represents communication and a vertical axis which represents agency as such each point in the model is representative of both communication and agency (Wiggins, 1979). Measures in this model are divided into eight scales, four of which show the poles of agency in contrast to submissiveness, and communication in contrast to separation, while the other four scales have the role of evaluation of the combination of these dimensions (Trucco, Wright, & Colder, 2011). In order to categorize the psychologically

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meaningful aspects of interpersonal functioning and social purposes goals (Pincus & Wright, 2010), agency and communication play a conceptual coordinates role (Wiggins, 1991). Wiggins mentioned the existence of two themes in Bakan understands of agency and autonomy. One of these themes is based on active agency and the other is based on separation (Hmel & Pincus, 2002). Active agency theme is evident in focus on “self protection, self assertion and self expansion” and the favor in mastering the environment (Bakan, 1966, p. 15). Wiggins (1997) called this aspect of agency as Autonomy and linked it to the concept of self-governance. He argues that Autonomy is placed on a continuum of passivity to agency. In this continuum, passivity represents the effect of external influences on the individual while the self-governing individual is which is ruled internally, acts from an agentic position. The above mentioned eight scales are labeled alphabetically in a counterclockwise direction around the circumplex (e.g., PA, BC, DE, etc.). These scales are defined by their angular positions which range from 00 to 3600 (Markey & Markey, 2009).

It has been proven that IPC is an extremely valuable model for understanding interpersonal characteristics and behaviors. This study evaluated and proved the usefulness of this model.

The importance of the IPC primary dimensions, warmth and dominance as the bases of different interpersonal issues, is emphasized by interpersonal researchers (e.g., Ansell & Pincus, 2004; Pincus & Ansell, 2003; Wiggins, 1991; Wiggins & Trapnell, 1996). The past studies evaluating the IPC help us to understand the interpersonal interactions and styles of attachment (Paradis and Boucher, 2010; Bartholomew, K. (1990), values (Locke, 2000; Horowitz and Strack, 2011), complementarily of interpersonal behaviors, personality characteristics (Gurtman, 1997), health-related behaviors, interpersonal problems (Gurtman, 1992; Locke, 2000; Matano & Locke, 1995), personality disorders (Madison, 1997), and therapeutic results (Locke, 2000).

This scale illustrates great reliability in all dimensions (5.69 or greater for all scales), and several studies also illustrate construct validity (e.g., Nealey-Moore, Smith, Uchino, Hawkins & Olson-Cerny 2007).

At the end, for developing norms for these eight scales of IPC, it is important to utilize great representative samples (Traupman, Smith, Uchino, Berg, Trobst, & Costa, 2009). IPC model has been made valid in America (Locke & Adamic, 2012), Finland (Ojanen, Gro'nroos, and Salmivalli, 2005), and Canada culture (Wiggins, Trapnell, & Phillips, 2010). Although these validations and confirmations doesn't meant the models universality. Considering the significance of this model in material counseling, firstly we need to evaluate its construct validity in order to use it in Iranian culture.

1.2. Current study

The main purpose of this study was to examine utility of Interpersonal circumplex (IPC) in marital counseling in Iranian couples. For this purpose, initially we were needed to assess IPC reliability and then it's structural validity. We expect that the IPIP-IPC will contribute to our ability to quickly and easily measure interpersonal characteristics thereby allowing an even broader exploration of the links between the IPC and various interpersonal and intrapersonal outcomes.

2. Methods

2.1. Participants

Participants in the current study were 150 couples from the Iranian Community Sample, ranging in age from 22 to 60 years. Participants selected by referring to counseling centers and community samples were normal. Respondents gave their informed consent, and completed the survey. No compensation was given to respondents.

2.2. Assessment

2.1. Iranian form of Interpersonal Problems Inventory (IR-IPC):

Interpersonal problems (IIP) were designed by Horowitz et al.'s (1988) as a measure for assessing interpersonal problems. This 127-items questionnaire includes a variety of interpersonal problems and were divided into two parts: the first one begins with "It is hard for me to," and the second one begins with "things that you do too much." This questionnaire's Items changed and decreased over time and finally ended up in IPC 32-Item questionnaire. Our observations showed that this 32-Item questionnaire was not consistent with Iranian culture and encountered participants' resistance in responding questions. Therefore, we changed questions to be in line with Iranian culture. Results of our initial observations and interviews showed that dividing questions into two parts is better. Because assessing Interpersonal problems was not accomplished in Iran, its applying and relation to other devices require assessing. *IR-IPC* is designed in two parts in regard to 32 Items-IPC (Trampell & Wiggins, 1990) and aim at promoting items straightforwardness and understandability. Therefore, *IR-IPC* assesses eight trait of interpersonal behavior accordance to 2-dimensional model (dominant and love). Each trait included 4 items. Scoring in some traits is consistent in all of the items and for others scoring is reverse. In this scale, 32 characteristics or behavior listed in 2 parts: first part included 17 items and the participants are recommended to identify how they understand such mentioned behavior. In this part, Participants mark their answers in a spectrum from "about impossible" (0) to "completely easy" (5). In the second part, the participants are recommended to identify their consistency with each of 15 listed behavior in a spectrum from "about never" (0) to "about ever" (5). Thus, scores allocated from 0 to 20 for each components (see appendix 1). Chronbach alpha coefficient in subscales of this scale were calculated between 70 to 88 (table 2) and its construct validity confirmed in relation to marital adjustment.

2.2 Procedure

Randomization test of hypothesized ordered relations (RTHOR): IPC model suitability was inquired by the randomization test of hypothesized order relations in regard to circular structure (Hubert & Arabie, 1987; Tracey, 1997a, 2000). The correlation was examined in related to the order of correlation size. It was hypothesized that closer scales to each other (e.g., BC-DE) would have a larger correlation than those types which are apart on the circle (e.g., BC-FG). In addition, the correlation between apart scales is larger than opposite types in the circle (e.g., BC-HI). For the IPC model there were 288 unique order predictions. The fit of these 288 predictions to the data is assessed and then compared to the random distribution of model data fit using all the random permutations of the rows and columns. As for the eight variable octants, there are 40320 (8!) permutations. The number of times that the random distribution has model fit as good or better than the actual model fit is divided by the total number of permutations in order to come up with an exact

probability test of deviation from chance. As an interpretive tool, Hubert and Arabie (1987) put forth the correspondence index (CI), which is essentially a correlation that can range from -1.0 to 1.0. The CI is characterized as the number of order predictions met minus the number of predictions violated divided by the total number of order predictions. So, for instance, a CI value of .50 shows that 75% of the predictions were met and only 25% violated. However, a CI of .00 indicates that 50% of the predictions were met while 50% were violated (see Hofsess & Tracey, 2005 for a listing of each prediction). This randomization test of hypothesized order relations was preferred over other options, i.e., circular unidimensional scaling, (Armstrong, Hubert, & Rounds, 2003) and CIRCUM (Browne, 1992, 1995), since the randomization test of hypothesized order relations affords an inferential test of fit (unlike circular unidimensional scaling) and allows for an inferential test of difference in fit across different samples. This is a unique quality which neither circular unidimensional scaling nor CIRCUM have. In addition, the CI provides a fit index that enables comparison with most of the literature. This is because the CI has been calculated on most samples in the literature (e.g., Tracey & Rounds, 1993).

3. Results

Means and standard deviations have reported in appendix1. Also, inter-correlations of 8 octants have represented in appendix2. Results of analysis of correlation matrixes were represented in table 1, where structure of 8 octants IPC was compared in Iranian Vs. United State samples; Iranian men V.s women; couples reports for their–selves V.s their spouses; men's reports for their–selves V.s their spouses; and women's reports for their–selves V.s their spouses.

Table1. Summary of Randomization test of Hypothesized Order Relations Results (RTHOR).

	<i>n</i>	Randomization test				SPEARMAN		
		<i>MET</i>	<i>NOT MET</i>	<i>TIE</i>	<i>CI</i>	<i>P</i>	<i>R</i>	<i>P</i>
1. cross culture								
Ir, Current Study(mixed)	300	265	20	3	0.85	0.0004	0.81	0.0006
US,Gurtman,1992	279	268	17	3	0.88	0.0004	0.89	0.0004
Ir Vs. US					-0.01	0.62		
2. across gender								
Men	150	271	15	2	0.89	0.0004	0.90	0.0004
Women	150	253	32	3	0.77	0.0004	0.82	0.0004
MenVs. Women					0.05	0.06		
3. across report type								
Me	150	251	36	1	0.75	0.0004	0.73	0.0008
My wife	150	270	16	2	0.88	0.0004	0.90	0.0004
meVs. my wife					-0.06	0.99		

**4. across men's
report type**

Me	75	251	35	2	0.75	0.0008	0.80	0.0004
my wife	75	274	11	3	0.91	0.0004	0.92	0.0004
Me Vs. My wife					-0.08	0.99		

**5. across women's
report type**

Me	85	235	49	4	0.65	0.0004	0.73	0.0004
my spouse	85	259	29	0	0.80	0.0004	0.83	0.0004
Me Vs. My spouse					-0.08	0.99		

As can be inferred from table 1, results of RTHOR and Spearman Correlation Coefficient (SCC) showed IPC model has proper fit with Iranian couples data (CI=0.85; P=0.0004; R=0.81; P=0.0006). No significant difference was showed between Ir and US sample (CI=-0.02; P=0.68). In subsamples results showed proper fit (men: CI=0.89, P=0.0004, R=0.90, P=0.0004; women: CI=0.77, P=0.0004, R=0.82, P=0.0004; report about one-self: CI=0.75, P=0.0004, R=0.73, P=0.0008; report about one's wife: CI=0.88, P=0.0004, R=0.90, P=0.0004). Although, apparently IPC had better fit with men than women, and with report about one's wife than report about one-self but RTHOR did not support from this these apparent differences (P> 0.05).

Men and women reported their-selves and their spouses interpersonal problems in the same manner in according to circumplex structure of IPC (men: for their-selves CI=0.75, P=0.0008, R=0.80, P=0.0004, and for their spouses CI=0.91, P=0.0004, R=0.92, P=0.0004; and their-selves versus their spouses CI=-0.08, P=0.99; women:for their-selves CI=0.65, P=0.0004, R=0.73, P=0.0004, and for their spouses CI=0.80, P=0.0004, R=0.83).

4. Discussion

IPC Model has a great theoretical background that led to increasing its utility, especially in couple therapy (Paradis & Boucher, 2010). The 2D structure of this model can be useful both in interpersonal problems and in prediction broad spectrum of other interpersonal variables, such as attachment style (Horowitz & Strack, 2011), Interpersonal Goals (Locke, &Adamic, 2012), and personality disorder (Rauthmann & Kolar, 2013; Miller, Price, Gentile, Lynam, & Campbell, 2012).

The main question of the present study was to find that does IPC model can be applicable in Iranian couples, both in research and in Intervention territory? For using this model in research and intervention in relation to couples, initially we needed to ensure from two issues: first, preparing a valid and powerful measure for assessing it and second, ensuring from its fitness in target community. In this research, for measuring model, initially provide an adjusted form with Iran culture, and then we test its psychometrics characteristics. In next step, assessed construct validity of measure and then its fitness. Reliability of results In BC, JK, and LM subscales showed that IR-IPC can be a good measure for assessing interpersonal problems, based on interpersonal circumplex structure. Present study, consistent with former studies (Acton & Revelle, 2002; Alden, Wiggins & Pincus,1990; Markey & Markey, 2009), showed that circumplex model has fitness with interpersonal problems structure in Iranian couples. Very indexes used for identifying this model (Acton & Revelle, 2002). Although, in this research we only used two index (Pearson Correlation

and CI index) for examining structural validity of model, but in regard to experiential supports of utility of this method (Tracy,2010), we can rely on obtained results.

Results showed that there is no difference between fitness of 2D and circumplex model of IPC in Iran and USA culture. In addition, this study showed that fitness of IPC model is similar in regard to apply style (perception of self and others interpersonal problems) and sexuality. These findings can supports from other findings about this model. Lack of interpersonal and cross-cultural differences, indicate that this model is suitable and fit for applying in cross-culture samples.

About fitness determination of the IPC model in comparing last four matrix relate to self-report and spouse-reports of men and women (as marked by numbers 4 and 5), congruent indexes apparently effected by sample size (n=85). Specially, in matrixes that related to self-reports interpersonal problems, congruent index is clearly lower. Although difference between this two pairs is not significant ($P<.05$), but need to examining these indexes in greater samples is apparent. This research finding, beside Akbarzadeh's findings (2010), let to increase validation of circumplex in Iran society.

Iranian counselors and psychologists that work in the field of family and family therapy can use this model for assessing their-their spouse perceptions of interpersonal problems. In addition, with respect to the relationship between IPC model with NEO-IV, attachment style, and personality disorder, profile of this model can use as a predictive index in relation to this variables. Whereas, territory of this model is broad, for assessing the relationship between these variables with IPC model in Iran, more research is needed. It can be used for children. Finally, suggest that this model assess in other groups of Iran culture, such as teenagers, intimate relationships, interpersonal goals and values and even in relationship between client and practitioner.

Although this study confirm fitness of IPC model in Iran, but for universality of this model in other culture, such as Southeast Asia that include most part of word population, it is need to more research and study.

6. Conclusions

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

7. Appendices

Appendix1. Descriptive Statics across Groups in Iranian sample

	Total																	
	Men						Women						Total					
	Me		My Spouse		Total		Me		My Spouse		Total		Me		My Spouse		Total	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
PA	2.03	0.92	2.33	0.47	2.04	0.92	1.75	0.74	1.88	0.88	1.88	0.88	2.03	0.92	1.89	0.88	1.96	0.90
NO	1.72	0.82	1.25	0.35	1.72	0.82	1.81	0.31	1.63	0.93	1.64	0.92	1.73	0.81	1.63	0.93	1.68	0.87
LM	2.24	0.87	3.38	1.24	2.26	0.88	2.13	0.43	2.26	1.00	2.26	0.99	2.24	0.86	2.27	1.00	2.26	0.93
JK	1.85	0.85	1.50	0.35	1.84	0.84	2.31	0.88	1.99	0.92	2.00	0.91	1.86	0.85	1.99	0.91	1.92	0.88
HI	1.88	0.95	2.13	0.53	1.88	0.94	2.50	0.94	1.99	0.92	2.00	0.92	1.89	0.95	1.99	0.91	1.94	0.93
FG	1.70	0.94	1.00	0.35	1.69	0.94	2.13	0.43	1.78	0.98	1.78	0.97	1.71	0.93	1.77	0.97	1.74	0.95
DE	1.30	0.77	0.75	0.35	1.30	0.77	1.81	0.24	1.36	0.89	1.37	0.88	1.32	0.77	1.35	0.89	1.33	0.83
BC	1.37	0.76	0.88	0.88	1.37	0.76	1.38	0.78	1.32	0.79	1.32	0.79	1.37	0.76	1.31	0.79	1.34	0.77

Appendix2. Correlation matrix in Iranian Total sample and United States (Gurtman, 1992)

	PA	NO	LM	JK	HI	FG	DE	BC
PA	1.00	.47 ^{Ir}	.09 ^{Ir}	-.19 ^{Ir}	-.10 ^{Ir}	-.05 ^{Ir}	.23 ^{Ir}	.44 ^{Ir}
NO	.70 ^{US}	1.00	.29	.11	.03	-.06	.17	.44
LM	.45	.62 ^{US}	1.00	.38	.04	-.18	-.18	-.09
JK	.30	.48	.70 ^{US}	1.00	.59	.21	.06	.00
HI	.12	.29	.52	.73 ^{US}	1.00	.55	.34	.20
FG	.19	.23	.43	.53	.70 ^{US}	1.00	.57	.29
DE	.34	.23	.39	.45	.53	.72 ^{US}	1.00	.62
BC	.64	.50	.31	.25	.26	.42	.50 ^{US}	1.00

Note: Above the diagonal axes show Iranian matrix and below show United States matrix

Appendix3. Correlation Matrix across Groups in Iranian sample

	Inter-correlations																α _{Cro}
	PA		NO		LM		JK		HI		FG		DE		BC		
	Diff	Mix	Diff	Mix	Diff	Mix	Diff	Mix	Diff	Mix	Diff	Mix	Diff	Mix	Diff	Mix	
PA	1.00		.43 ^H	.51 ^B	-.12 ^H	.19 ^B	-.30 ^H	-.20 ^B	-.07 ^H	-.16 ^B	-.09 ^H	-.12 ^B	.18 ^H	.13 ^B	.41 ^H	.36 ^B	.70
NO	.43 ^F	.43 ^D	1.00		.04	.35	.01	.10	.17	-.06	.00	-.10	.20	.08	.50	.33	.67
LM	.57 ^G	.50 ^E	.30	.19	1.00		.48	.38	.05	.05	-.11	-.22	-.09	-.26	-.13	-.10	.80
JK	.19	.15	.39 ^G	.35 ^E		1.00		.32	.39	.01	.02	-.16	-.14	-.11	-.11	-.00	-.08
HI	-.20	-.29	-.04	.03	.25 ^F	.37 ^D		1.00		.58	.55	.17	.22	.18	-.06	-.02	.64
FG	-.16	-.09	.22	.19	.50 ^G	.40 ^E	.67	.63	1.00		.59	.53	.49	.26	.36	.19	.79
DE	-.18	-.14	-.06	.05	-.10	-.02	.60 ^F	.59 ^D	.58	.57	1.00		.59	.53	.49	.26	.79
BC	-.10	-.06	-.07	.02	.17	.08	.49 ^G	.59 ^E	.58	.57	.58	.57	1.00		.53	.56	.88
	-.13	-.10	-.02	-.01	-.26	-.19	.21	.17	.51 ^F	.53 ^D	.58	.57	.53	.56	.30	.33	.88
	-.16	-.01	-.16	-.10	-.18	-.17	.26	.25	.58 ^G	.57 ^E	.59	.57	.59	.57	.23	.26	.88

DE	-.03	.08	.01	.14	-.34	-.21	-.05	.05	.22	.34	.55 ^F	.54 ^D	1.00	.53	.64	.78
	.26	.36	.16	.19	-.20	-.16	-.07	.08	.30	.34	.57 ^G	.59 ^E		.69	.62	
BC	.20	.31	.29	.40	-.30	-.21	-.04	-.03	.18	.26	.35	.33	.57 ^F	.55 ^D		.68
	.48	.53	.35	.46	.02	-.01	.06	.04	.19	.16	.33	.26	.71 ^G	.68 ^E	1.00	

Note: "Diff" is difference

B=men, C=women, D=me, E=my spouse; F=men (me); G= men (my spouse); H=women (me); I=women (my spouse).

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Questionnaire

N	How is doing each of mentioned behavior for your spouse, in practice	Almost impossible	Very hard	Some what hard	Frequently easy	Very easy	Almost easy
1	Others understanding						
2	Supporting others for fulfilling their goals						
3	Happy for others happiness						
4	Kind with others						
5	Love to others						
6	Intimate with others						
7	Membership in a group						
8	Introducing self to a new group						
9	Interaction with others						
10	Asking for interaction with others						
11	Avoiding annoyance from others						
12	Encounter with others in problem situation						
13	Expressing feeling and affects in contact with others						
14	Resolution when it is necessary						
15	Expressing anger when you are right						
16	Defending of your rights and opinions against others						
17	Hiding subjects and issues from others (secrecy)						
	How much your spouse do mentioned behavior, in practice?	Almost never	Very infrequently	Some what infrequently	frequently	Very frequently	Almost always
18	Anger and irritation toward others						
19	Trying to control others						
20	Discuss and argue with others						
21	Suspect to others						
22	Tend to take revenge on others						
23	Distant from others						
24	Accordance with others						
25	Passivity in letting others encroach on what you have						
26	Preferring other's needs against self welfare						
27	Excessive afford to get other's satisfaction						
28	Excessive prioritization of others need over yours						
29	Exceed influencing of other's problems and disasters						
30	Be frank toward others to excess						
31	Excessive importance to get others attention						
32	Excessive expression in private issues						