Education Research Journal
ISSN 2026-6332
Muhammad Omer Shehzad, *Volume (13) Issue (2): 6 – 14 February - 2023.* *RESEARCH PAPER*

Psychological distress and coping strategies among pregnant women

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Abstract

The present study examines the relationship between Psychological Distress and Coping Strategies among Pregnant women. Psychological Distress refers to non-specific symptoms of Stress, Anxiety and Depression. High levels of Psychological Distress are indicative of impaired mental health and may reflect common mental disorders, like depressive and anxiety disorders which is more common in women (Cuijpers *et* al., 2009). The study comprised of 200 pregnant women between the age range of 25 to 37 years. The sample was taken from different hospitals of Islamabad and Rawalpindi. Brief cope scale (Carver, 1997), and Depression, Anxiety, Stress scale (Lovibond & Lovibond, 1995) were used to assess the relationship between study variables. Psychometric properties of Depression Anxiety Stress Scale (DASS) α =0.70 and Brief COPE Scale (BCS) α = 0.64 indicated satisfactory reliability. Results showed that there was significant relationship between Psychological Distress and Coping Strategies. The findings of the present study were discussed in the light of the relevant literature. Use of the self-report measures and cross-sectional nature of the study are the limitations. Current study has the certain implications for the mental health professionals.

Keywords. Psychological Distress, Depression, Anxiety, Stress, Coping Strategies.

Introduction

Pregnancy is a period of extension and expectation which takes the feelings of happiness for all the pregnant mothers, no matter what they are experiencing and facing in pregnancy either bad or good. Pregnancy and birth are times of large emotional and spiritual warmness, even when both mother and baby is healthy (Axe, 2000). It is the time duration of conception to birth. During the time of pregnancy, a fetus growth occurs in the womb of the women. Pregnancy can define in other words as a period of 260-294 days that have been beyond since the first day of the last menstrual period (Fleischman, Oinuma & Clark, 2010).

Pregnancy supposes as a time of enjoyment and pleasure for most of the pregnant women, particularly those women who are going to become a parent for the first time. But not all of the women experience the same feelings of happiness. Some of them may suffer from psychological distress (i.e., depression, anxiety and stress) with or without any reasons. Hormonal influence can also play a momentous role during pregnancy because different types of hormones that change during pregnancy may have influential effects on pregnant women. Axe (2000) identified that pregnant women experience psychological distress because of low social support from people around them.

Psychological Distress

Psychological distress refers to non-specific symptoms of stress, anxiety and depression, and it is more common in

women. Our aim was to investigate factors contributing to psychological distress in the working population, with a special reference to gender differences. Psychological distress is the product of depression, anxiety and stress. According to Lovibond (2005) there are three types of psychological distress.

Depression is frequently defined as emotional, behavioural, physical and emotional distress. Feelings like boring, empty, exhausted and sad in pleasant and enjoyable daily activities. It is also demonstrated that behavioural problems like irritable mood, impaired memory, disturbances complaints, lack of ability to concentrate, loss of sexual desire, difficulty in making decision, excessive crying and feelings of guilt. Loss of appetite, weight loss, indigestion, constipation, headaches, sleep problems, wooziness, and fast heart rate are familiar physical symptoms of depression (Schafer, 1992).Depression also defined in another ways like feelings of dysphoric mood, powerlessness, and depreciation of life, having no interest in enjoyable activities, self-blame and, involve in anhedonia and apathy (Lovibond, 1995).According to the Beck (1976), cognitive theory, depression is a cognitive practice that results from the activation of depressive self-schemas. These schemas refer to organized mental structures that, in the case of depression, are negatively toned representations of self-referent knowledge. Beck presented cognitive triad, in which there are three important mechanisms that are negative opinion about *self*, *world* and also about *future*. Depressed individual falsifies the experiences about the world, the self and the future in a negative way.

Anxiety is an emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure. People with anxiety usually have recurring intrusive thoughts or concerns. They may avoid certain situations out of worry. They may also have physical symptoms such as sweating, trembling, dizziness, or a rapid heartbeat (Solan, 2000).

Anxiety is not the same as fear, but they are often used interchangeably. Anxiety is considered a future-oriented, long-acting response broadly focused on a diffuse threat, whereas fear is an appropriate, present-oriented, and short-lived response to a clearly identifiable and specific threat (Lovibond & Lovibond, 1995). Cognitive psychologist revealed that anxiety can also result of illogical and irrational believes and thought process of a person (Beck, 1976). It is the tendency in which a person makes thought that the events are more damaging, risky or shameful than they really are. Anxiety frequently provoked by negative dealings of life, and bad experiencing in daily routines also indicates the start of anxiety disorders whether it is less or high in a person depends on cognitive process. The memory of person varies in both their thinking and type of fears and worries and because of his or her negative mood, he has powerful and relentless worries and these worries are more anxious (Davisson *et* al., 2010).

Stress is a feeling of emotional or physical tension. It can come from any event or thought that makes you feel frustrated, angry, or nervous. Stress is your body's reaction to a challenge or demand. In short bursts, stress can be positive, such as when it helps you avoid danger or meet a deadline. But when stress lasts for a long time, it may harm your health. The stress highlight levels of non-chronic arousal through difficulty relaxing, nervous arousal and being easily upset/agitated, irritable/over-reactive and impatient (Lovibond & Lovibond, 1995). According to RInder 2009, different variations in the cause and explanation of psychological distress. Psychological distress is rarely defined as separate concept and is frequently surrounded in the concept of strain, stress, and distress.

Psychological distress refers to a variety of feelings experienced by people who may have certain mental health difficulty such as mood or anxiety disorders, or who may be extremely stressed due to situational reason. Psychological distress takes place when individual's daily life or social working is disturbed due to emotional disturbance (Wheaton, 2007). Various studies were performed for classifying the risk and protective factors connected with it. On the other hand, distress is an investigating criterion for few psychiatric disorders (e.g., major depression; generalized anxiety disorder etc (Phillips, 2009; Watson, 2009). Hence, psychological distress would be a health concern generally when it is come with by other symptoms that, when added up, gratify the diagnostic criteria for a mental illness.

Coping Strategies

Coping has been defined as the process of attempting to reduce distress associated with threat, harm, or loss (Carver, 2010). Individuals hold number of strategies to handle and reduce negative thoughts and emotions. Coping is multidimensional construct; it incorporates into relatively stable coping styles as well as coping responses working in specific stressful encounters.

Coping strategies, frequently divided into *engagement* and *disengagement* coping, can be either beneficial or harmful to a person's emotional well-being (Carver & Scheier, 1994). Coping is generally perceived as a covert and overt behavior patterns through which individuals can actively lesson their stress through different coping strategies (Lazarus & McGrawth, 1990). It refers to an effort of an individual to get at the sources of stress to overcome the barriers responsible for frustration, and to resolve conflicts (Silverman, 1982). Coping strategies are conscious rationale ways of dealing with the stressor of life (Goosh, 2002). Coping is not a single strategy that applies to all circumstances as people cope differently with irritations, dangers, losses, and challenges; and they may use different techniques over time according to the situations and nature of the stressors at particular condition (Carver, Scheire &Terry, 1994). According to author there are four types of coping strategies (Carver, 1997).

Problem-focused coping includes all the active efforts to manage stressful situations and alter a troubled person-environment relationship to modify or eliminate the sources of stress via individual behavior (Riaz, 2002). Coping strategies that can be considered to be problem-focused include (but are not limited to) taking control of the stress (e.g., problem solving or removing the source of the stress), seeking information or assistance in handling the situation, and removing oneself from the stressful situation (Herman & Tetrik, 2009).

Active avoidance coping involves cognitive and behavioral efforts oriented toward denying, minimizing, or otherwise avoiding dealing directly with stressful demands and is closely linked to distress and depression (Cronkite & Moos, 1995; Penley, Tomaka, & Wiebe, 2002). It includes behavioral disengagement, venting, and mental disengagement (self-distraction). Behavioral disengagement is the coping strategy in which the person reduces efforts to deal with the stressor (Akhtar, 2005).

Positive coping involves extracting the positive out of the negative events through positive thinking (1997). Positive coping includes positive reframing, acceptance, humor, using emotional support and instrumental support. Positive reframing and growth is another coping strategy. It deals with constructing a stressful event in a positive light (Riaz, 2002). Positive coping strategies are any actions you take to manage and reduce stress in your life, in a way that isn't going to be harmful or detrimental in the long term. People who use positive strategies are not only better able to tackle challenges and bounce back from tough times, but they are also much happier.

Religious/Denial coping is defined as "the use of religious beliefs or behaviors to facilitate problem-solving to prevent or alleviate the negative emotional consequences of stressful life circumstances" (Koenig et al. 1998). Refusal to believe that the stressors exist or trying to act as the stressors are no real or turn towards religion in order to deal with the stressor. Religious/denial coping includes religious and denial coping. Denial refers to refusal to accept that the stressor is there or acting that it is not real. Turning to religion is a coping strategy in which one might return to religion under stress for many reasons. It not only serves as source of social support but also a vehicle for positive reinterpretation and growth or as a tactic of active coping with a stressor. But faith in prayer may sometimes lighten the emotional burden of an individual. So it is not terrible towards eliminating the problem (Riaz, 2002).

Perception of stress plays an essential role in the coping process, which is associated with different coping styles (Gourounti *et* al. 2012). Results of past studies showed that positive perceptions of stress were more likely to result in positive coping styles and less likely to result in negative coping styles in dealing with stress (Icekson & Pines 2013). In contrast, negative perceptions of stress were less likely to result in positive coping styles and more likely to result in negative coping styles. A meta-analysis showed that across various stressful life situations, religious coping is continuously associated with improved psychological outcomes, including life satisfaction, acceptance, spiritual growth, hopefulness, and stress-related. Another study revealed that partner support, providing emotional support was associated with reduced mortality more than receiving emotional support (Brown, Nesse, Vinokur, & Smith, 2003).

The aim of present study to investigates the coping strategies among pregnant women who experience psychological distress i.e. Depression, Anxiety, and Stress. In Pakistani culture pregnancy is considered as a time of joy and happiness for women. It is considered as a sign of growth for any generation. It brings the feelings of dignity for women when they come to know that they are expecting (pregnant), they may find more place in the hearts of them in laws and especially husbands. Women in Pakistani culture are given more prestige if they are in the role of mother, but there are some natural factors (i.e. physiological and psychosocial factors) that may create hindrance for women during pregnancy. This hindrance or resistance may start to emerge right from the beginning of pregnancy. These factors may be psychological in nature e.g., depression, anxiety and stress.

Pregnant women may experience a lot of psychological distress. Many researches in rural areas of Pakistan revealed that 25% of women during pregnancy and 28% in the postpartum period suffered from depression (Rahman, Iqbal, & Harrington, 2003). Psychological distress later in pregnancy is associated with an increased risk of preterm delivery. The etiology of preterm delivery is largely unknown, but a few causes have been identified: mother's education and socioeconomic status, smoking, low weight and height before pregnancy, young age. Stress has been hypothesized as a risk factor for preterm delivery, perhaps by inducing release of oxytocin (Hedegaard, Henriksen, Sabroe, & Secher, 1993).

Coping of pregnant women in the USA found that active coping was the most frequently used coping strategy, and that disengagement, a form of avoidant coping, was significantly associated with higher psychological distress (Blaney, Fernandez, Ethier, Wilson, Walter& Koenig, 2004). The avoidance behavior is also another factor that may lead to anxiety among pregnant women. It has been suggested that for coping with anxiety provoking situations, a pregnant woman may display the avoidant behavior. As the pregnant women get involved in the avoidance behavior instinctively, they are more likely to have increased level of anxiety (Roos, Faure, Vythilingum, & Stein, 2013).

Methods

Sample

Sample of the present study consists of 200 pregnant women of ages 25-37 years (*M* = 31). The pregnant women were selected through purposive sampling technique from different hospitals of Rawalpindi, Islamabad (i.e., Shifa International Hospital, Pakistan Institute of Medical Science PIMS, Center Hospital Rawalpindi and Polyclinic).

Demographic information of i.e. age, Gender of previous children, and Miscarriages were included in sample.

Table 1: Demographic Characteristics, Frequencies and Percentages of the variables of research (N = 200)

Demographic character		*f*	%
Age	26-29	70	30
	30-33	101	49.5
	34-37	29	19.5
Gender of previous child	Son	78	39.5
	Daughter	47	24.5
	Both	75	36
Miscarriage	Yes	41	20.5
	No	159	79.5

Table 1 exhibits the demographic descriptions of sample their frequency and percentage. This demographic variable of sample includes age, gender of previous children, and miscarriages.

Instruments

Brief Cope Scale. The Brief Cope (Carver, 1997) is a self-report questionnaire used to assess a number of different coping behaviors and thoughts a person may have in response to a specific situation. The scale was originally developed by carver (1997) and translated into Urdu by Akhter (2005) was used to identify the coping strategies employed by the respondents. Brief Cope was a brief form of COPE Inventory, and consisted of 28 items categorized into 14 subscales. Each of the 28 items required to response on 4-point scale ranging from 1to 4. (Akhter, 2005). 1 for *"I haven't been doing this at all",* 2 for *"I have been doing this a little bit",* 3 for "*I have been doing this a medium amount",* 4 for *"I have done this a lot".* Factor structure of brief cope (Carver, 1997) revealed four factors i.e., active avoidant coping, problem focused coping, positive coping, and religious coping. Active avoidant coping includes items from original (1, 4, 6, 9, 11, 13, 16, 19, 21, & 26) (α=.88). Problem focused coping include items (2, 5, 7, 10, 14, 23, & 25) (α= .80). Positive coping includes items (12, 15, 17, 18, 20, 24, & 28) (α= .81) and religious coping include items (3, 2, 22, & 27) (α=.57). The items were summed for each subscale separated to get total score on all 4 subscales, the high score on each indicating individual is experiencing that coping strategy and low score indicate less use of that coping strategy.

Depression Anxiety Stress Scale (DASS). The DASS (Lovibond & Lovibond, 1995) consists of 42 negative emotional symptoms. Scores for the depression, anxiety and stress scales are determined by summing the scores for the relevant 14 items for each subscale. DASS is 42 items self-report measure of anxiety, depression and stress developed by Lovibond and Lovibond (1995). Translated version of DASS was used in the present study (Aslam, 2007). It has three subscales (depression, anxiety, and stress). Each subscale consists of 14 items. It is a 4-pointlikert type scale. Its responses are as 0 for *"not at all",* 1 for *"occasionally"*, 2 for "*often*" and 3 for *"all the time"*. All of the items are positively worded. The alpha reliability of the scale is .92 (Lovibond & Lovibond, 1995). There are three subscales of DASS. First of them is depression scale which defines depression as dysphoria, hopelessness, devaluation of life, self-depression, and lack of involvement, anhedonia and inertia. It consists of 7 items and it has Cronbach alpha reliability of .91. It includes these items 3, 5, 10, 13, 16, 17, and 21. Second is anxiety scale according to which anxiety is an automatic arousal, skeletal muscle effects, situational anxiety and subjective experiences of anxious effect. It has 7 items with Cronbach alpha .84. Score range from 0-3. It includes these items 2, 4, 7, 9, 15, 19, and 20. Third is stress scale and can be defined as any type of change that causes physical, emotional or psychological strain. It also includes 7 items with Cronbach alpha .90 (Lovibond & Lovibond, 1995). It includes these items1, 6, 8, 11, 12, 14, and 18.

Procedure

The data was collected from the Private and Government hospitals of Rawalpindi and Islamabad. The permission of the data collection was obtained from the authorities of hospitals. Some of pregnant women were personally contacted and some of them were approached with the help of authorities of the hospital. After taking the informed consent, pregnant women were brief about the purpose of the study. They were assured that the information they provided will remain confidential and only used for research purpose. Then the pregnant women were hand over the Questionnaire. In addition, they were asked to fill the demographics information that is required on the demographic sheet.

Results

Present study was carried out to examine the relationship between psychological distress and coping strategies among pregnant women and also aimed to investigate the role of demographic variables (i.e., age, gender of previous child, and miscarriage) in the relationship between psychological distress and coping strategies among pregnant women. Descriptive statistics were obtained for all

study variables followed by alpha reliability coefficient of the scales. Pearson correlation coefficient was also computed to check the relationship between variables. The tabulated results are as follows:

Reliability Estimates and Descriptive Analysis of Measures. The reliability was assessed for the DASS (Lovibond & Lovibond, 1995), CSS (Carver, 1997) and their subscales. The assessment was carried out using Cronbach's alpha computed for the research sample. Descriptive statistics on the Depression Anxiety Stress, and Coping Strategies and their subscales were calculated by computing their means, standard deviation, skewness, and kurtosis for the main sample of pregnant women (*N*=200). The results revealed are presented in the following table after the calculation.

Table 2: Alpha coefficient and Descriptive for the DASS and CSS and their subscales (N = 200)

Variables	No. of items	α	M	SD	Range		Skewness	Kurtosis
					Potential	Actual		
D	7	*.66*	9.14	7.03	7-28	10-17	.95	1.10
A	7	*.74*	11.27	7.43	7-28	11-21	.89	.53
S	7	*.72*	13.91	7.97	7-28	13-23	.54	-.05
PFC	7	*.61*	18.64	4.34	7-28	11-26	-.05	.06
AAC	10	*.63*	20.97	5.01	10-40	22-32	.56	.23
PC	7	*.59*	16.66	4.01	7-28	9-26	-.08	-.58
RC/DC	4	*.62*	10.42	2.23	4-16	4-16	-.48	.28

Note: D = Depression, A = Anxiety, S = Stress, PFC = Problem Focused Coping, AAC = Active Avoidance Coping, and RC/DC = Religious/Denial Coping.

Table 2 shows descriptive statistics, alpha reliability coefficients, skewness and kurtosis of psychological distress scale and coping strategies scale, and their respective subscales. The table also shows the Mean and Standard deviation of the scales. All the scale is adequately reliable. Table 2 also shows skewness and kurtosis values and shows data are normally distributed.

Correlation among Construct. The Table 3 shows the correlation among the scales used for psychological distress and coping strategies with respective subscales

.

Table 3: Inter-correlation among the sub-scales (N = 200).

Variables	1	2	3	4	5	6	7
D		.71**	.82**	-.47*	-.64**	-.42**	-.20*
A			.67**	-.32*	-.61**	-.30*	-.13*
S				-.26*	-.70**	-.52**	-.27*
PFC					.36**	.57**	.45**
AAC						.50**	.22*
PC							.40**

Note: D = Depression, A = Anxiety, S = Stress, PFC = Problem Focused Coping, AAC = Active Avoidance Coping, Positive Coping = PC, and RC/DC = Religious/Denial Coping. **p < .05, **p < .01.*

Table 3 illustrates the six measures for the construct studied in the present study it shows that there is a significant relationship between psychological distress and Coping strategies. There is significant negative relationship between psychological distress and Coping Strategies (Active Avoidance Coping, Problem Focused Coping, Positive Coping and Religious/Denial Coping).

Differences among Demographic Variables and Psychological Distress and Coping Strategies

t-test. Independent sample t-test were conducted to check the differences along the demographic conditions i.e., miscarriage (see Table 4).

Table 4: Comparison of miscarriage among study variables (N = 200)

	Miscarriages								
	Yes (n=41)		*No (n=159)*				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t(198)*	*p*	*LL*	*UL*	Cohen's d
D	12.43	7.75	8.28	5.60	3.45	.00	1.78	6.51	0.57
A	12.68	7.41	10.90	7.42	1.36	.01	.78	4.34	0.24
S	16.14	8.46	13.33	7.76	2.03	.00	.080	5.54	0.34
PFC	19.07	4.08	18.50	4.40	.75	.45	-.928	2.06	-
AAC	22.68	5.97	17.52	4.11	2.48	.01	.443	3.86	0.41
PC	16.95	4.58	16.58	3.86	.52	.60	1.02	4.75	-
RC/DC	10.56	4.42	7.38	2.81	.45	.01	1.59	3.95	0.06

Note: D = Depression, A = Anxiety, S = Stress, PFC = Problem Focused Coping, AAC = Active Avoidance Coping, Positive Coping = PC, and RC/DC = Religious/Denial Coping. **p < .05, **p < .01.*

Table 4 shows that depression, anxiety, stress, active avoidance coping and religious/denial coping have significant differences on those women who have already experience mischarges. The women who experience miscarriages have greater depression (*M* = 12.43, *SD* = 7.75), Anxiety (*M* = 12.68, *SD* = 7.41) and Stress (*M* = 16.14, *SD* = 8.46) (Psychological Distress) as compared to women who no experience miscarriages. The active avoidance coping (*M* = 2.68, *SD* = 5.97) have more used by women who experience miscarriage. Religious/Denial Coping (*M* = 10.56, *SD* = 4.42) have more used by women who experience miscarriage.

ANOVA-test were conducted to check the differences along the demographic conditions i.e. age, and gender of previous child (see Table 5, and 6).

Table 5: One-way analysis of variance among age and study variables (N = 200).

Age									
	26-29 *(n=70)*		30-33 *(n=75)*		34-37 *(n=59)*				
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*P*	*Tukey's post hoc*
D	11.78	4.89	19.99	8.96	8.99	3.12	.84	.32	-
A	9.97	4.12	13.3	8.12	7.60	4.43	.33	.44	-
S	18.98	9.01	9.11	5.01	8.93	3.09	2.12	.01	1 > 2 & 3
PFC	7.89	2.90	11.01	5.12	9.09	3.08	.64	.77	-
AC	12.45	4.97	11.03	3.06	11.55	3.19	.33	.89	-
PC	17.89	6.17	13.48	4.01	12.01	3.96	1.80	.01	1 > 2 & 3
RC/DC	16.97	5.90	17.05	1.81	16.22	3.78	.50	.78	-

Note: D = Depression, A = Anxiety, S = Stress, PFC = Problem Focused Coping, AAC = Active Avoidance Coping, PC = Positive Coping and RC/DC = Religious/Denial Coping. **p < .05, **p < .01.*

Table 5 shows mean difference of age ranges, and subscales of psychological distress and coping strategies. There is significant difference shown in those pregnant women who are younger. The pregnant women, age group of 26-29 (young), (*M* = 18.98, *SD* = 9.01) have more stress than elder age groups pregnant women. The results of age groups differences also shown that, the pregnant women, age group of 6-29 (young), (*M* = 17.89, *SD* = 6.17) using positive coping strategies than elder age groups pregnant women.

Table 6: One-way analysis of variance among gender of previous child and study variables (N = 200).

Gender of previous child									
	Son *(n=37)*		Daughter *(n=40)*		Both *(n=40)*				
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*P*	*Tukey's post hoc*
D	9.78	5.08	15.15	8.96	11.30	6.90	1.84	.01	2 > 3 & 1
A	10.97	7.17	16.55	9.22	7.60	4.43	2.51	.05	2 > 1 & 3
S	13.67	7.62	14.60	8.48	16.65	9.26	.47	.23	-
PFC	17.94	8.22	25.07	10.67	17.87	7.95	3.21	.04	2 > 1 & 3
AC	20.54	4.97	21.02	4.06	21.52	5.18	.33	.91	-
PC	16.97	5.90	17.05	1.81	16.22	3.78	.50	.78	-
RC/DC	10.32	3.18	21.02	7.73	10.70	3.73	.90	.01	2 > 3 &1

Note: D = Depression, A = Anxiety, S = Stress, PFC = Problem Focused Coping, AAC = Active Avoidance Coping, Positive Coping = PC, and RC/DC = Religious/Denial Coping. **p < .05, **p < .01.*

Table 6 shows mean differences of genders of previous child, and subscales of psychological distress and coping strategies. There is significant difference shown in those pregnant women who have previous child, daughter. Those pregnant women who have previous child is daughter, (*M* =15.15, *SD* = 8.96) have more depression. Like that, those pregnant women who have previous child is daughter, (*M* =16.55, *SD* = 9.22) have more anxiety. The results show that previous child's gender of pregnant women shows significant difference on problem focused and religious/denial coping. The pregnant women with previous gender child is daughter (*M* = 25.07, *SD* = 10.67) using problem focused coping as compared to those who have both children and either have previous child is boy. Like that, the pregnant women with previous gender child is daughter (*M* = 21.02, *SD* = 7.73) using religious coping/denial coping as compared to those who have both children and either have previous child is boy.

Discussion

The present study aimed to assess the psychological distress in pregnant women in association with coping strategies. Using two variables analysis, examined the relationship between psychological distress and coping strategies among pregnant women. Findings from variable analysis indicated meaningful association between the variables. In order to fulfill the requirement data was collected from the hospitals of Islamabad and Rawalpindi. The age range for the sample was 26 to 37 years, latter on particular analysis have been done to assess the results in very objective and statistical means.

The objective of the research was accomplished through data collection from pregnant women by using Depression Anxiety Stress Scale (Lovibond & Lovibond, 1995). Translated version of scale Akhtar (2005), was used to assess the psychological distress in pregnant women. The scale (DASS) that is developed by Lovibond (1995). The translated version of scale has 21 items that is distributed in three subscales Depression, Anxiety, and Stress. The coping strategies measures through Brief COPE Scale developed by Carver (1997). The scale comprised 28 items and translated by Akhter (2005). The items divided into four subscales i.e., Problem focused coping, Positive coping, Active avoidance coping, and Religious/denial coping. Reliability of current study scales were examined by means of alpha coefficient and were accomplished good alpha coefficient for scales and subscales. Providentially these scales psychometric properties including Cronbach's alpha have been potentially sound. The subscales Depression (α=.66), Anxiety (α=.74), and Stress (α=.72). Brief COPE subscales, Problem focused coping (α=.61), Active avoidance coping (α=.63), Positive coping (α=.59) and Religious/Denial coping (α=.62) have been found reliable (see Table 2).

According to hypothetical assumptions, kurtosis and skewness was examined for all scales and subscales to determine the normality of the data in current study (Kim, 2013). Skewness and kurtosis values were fairly proper for all scales and subscales of Depression Anxiety Stress Scale and Brief COPE Scale indicating that data was normally distributed (see Table 2). Negative values of kurtosis on all scales and their respective domains indicate that distribution curve is relatively flat and heavy tailed distribution of obtained sample scores that indicates the entire sample has variety of features evenly distributed revealing unique status (Kim, 2013).

In the present study, the basic correlation coefficients were calculated. The relationship between psychological distress and coping strategies of pregnant women were explored. There is a positive relationship between the subscales of psychological distress i.e. depression, anxiety and stress. It was also found that there is positive relationship between the subscales coping strategies i.e. problem focused coping, active avoidance coping, positive coping and religious/denial coping. The results showed that there is a negative relationship between the subscales of psychological distress (depression, anxiety, and stress) and coping strategies (problem focused coping, active avoidance coping, positive coping and religious and denial coping) see table 3.

In contrast with demographic variables *t- test* was computed for comparing pregnant women on the basis of miscarriages. There was significant difference between

miscarriages and no miscarriages. Women who experience miscarriages have more psychological distress, depression, stress and anxiety. It was also found that they also used more active avoidance coping and religious/denial coping. Previous studies supported our results that previous history of fetal loss may results in serious long-term effects (Cuoto *et* al*.,* 2009). Different problems like concentration difficulties excessive fatigue and maladaptive physiological distress and psychological reactions occur among women after fetal loss.

In the present study analysis of variance (ANOVA) was used to determine the effect of age groups. There were significant differences found among study variables and age differences. Young age pregnant women have more stress than elder pregnant women. And they used positive coping strategies to reduce their stress. ANOVA was also computed for comparing pregnant women on the basis of gender of previous children. Pregnant women who have daughters are more depressed and anxious than those who have son or both. Pregnant women who have daughters used more problem focused coping and religious/denial coping as compared to women who have sons or both. The literature also gave enough evidence that pregnant women with previous daughter have more psychological distress and these women followed the religious coping strategies (Hyde *et* al., 2005; Rand, 2008).

Limitations and suggestions

The current study includes only pregnant women of Islamabad and Rawalpindi between age ranges of 26-37 years through convenient basis (asking them whether they want to participate in research and continue to asked until the sample size is reached). The sample size was relatively small and is made for only twin cities. So the generalizability of the result is limited. To increase the generalization of study should include the pregnant women of other hospitals and other cities as well.

The diplomatic attitude is connected to the stigma of psychological illness (such as depression, anxiety, and stress). So, evaluations of true answers were limited because of social expectations. There is need to develop our awareness program regarding this issue.

Recommendations

- Proper sleeping and healthy nutrition are necessary to improve both physical and mental health.
- Meditation and relaxation training such as deep breathing and muscle relaxation is best to reduce psychological distress i.e. depression, anxiety, and stress.
- Light physical activities such as exercising (Yoga) provide some stress relief.
- Sharing problem to any one, catharsis, and positive thinking are better solution of problems.

Conclusion

The current study revealed that significant relationship between psychological distress and coping strategies among pregnant women. By examining the role of demographics such as, age, gender of previous children, and miscarriages enlarged the consequences of the current study. Almost all results were consistent with previous studies. The findings show that the subscales of Brief COPE scale are negatively correlate with psychological distress. The findings also reveal that psychological distress is negative correlate to problem focused coping, active avoidant coping, positive coping, and religious/denial coping. It was found that findings are consistent with previous literature.

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