METHODOLOGY

The major objective of the present study was to investigate the main and interactive effects of religiosity and gender on ways of coping and well-being in senior citizens living with family and those living in old age homes. An attempt was also made to study the main effect of living place and its interaction with religiosity and gender on ways of coping and well-being in senior citizens. The details of the subjects, tests and materials, and the design and procedure employed were as under:

SAMPLE

The purposive sample consisted of 160 senior citizens (80 living in families, 40 males and 40 females; and 80 living in old age homes, 40 males and 40 females). The age-range of the individuals was 60 to 75 years. The sample was drawn from Amritsar, Tarn Taran and Jalandhar cities of Punjab, India. All the subjects were initially administered Brief Multidimensional Measure of Religiosity Scale and then categorized into “high scorers” and “low scorers” on the basis of median. The medians of subjects in each of two groups (high and low on religiosity) were:

<table>
<thead>
<tr>
<th>Living</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in old age home</td>
<td>97.62</td>
<td>97</td>
</tr>
<tr>
<td>Living with Family</td>
<td>94.5</td>
<td>93.34</td>
</tr>
</tbody>
</table>

The subjects in each of the above male and female groups were assigned in equal number to two levels namely high religious and low religious. Each group consisted of 20 subjects.
### Mean and Standard Deviations (S.Ds) for religiosity scores of Religiosity × Living Place × Gender groups (n=20)

<table>
<thead>
<tr>
<th>Religiosity Level</th>
<th>Living in old age home</th>
<th>Living with family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>High</td>
<td>107.7</td>
<td>7.15</td>
</tr>
<tr>
<td>Low</td>
<td>88</td>
<td>6.17</td>
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### Sample Criteria

**General Inclusion Criteria:**

- Age-range: 60-75 years
- Belonging to middle class
- Educational level: matriculation and above
- Religion: Hindu and Sikh
- Stay with family
- Stay in free old age home
- Married
Exclusion Criteria

- Single/ Unmarried
- Those whose spouses are dead
- Having some major psychiatric illness
- Having some major physical illness
- Having some major neurological illness
- Any kind of substance abuse

Since the target population was senior citizens, at first purposive sampling method was employed. Hence various old age homes were approached to collect information about senior citizens who satisfied the inclusion criteria. Since, senior citizens living with family were also included in the sample, it was necessary to ascertain whether they fulfilled for the inclusion criteria.

TOOLS: The following tools were used in the present study.

1. Brief Multi Dimensional Measure of Religiousness Scale, BMMRS (Fetzer, 1999)

   The BMMRS includes 12 domains that measure various aspects of religiosity. In the present study the subset of 24 of the Fetzer items was included and the combined score provide the religiosity level of the subjects. The response formats included a 6-point scale ranging from 1 = “Never or almost never” to 6 = “Many times a day” for Daily Spiritual Experiences items, and a 4-point scale from 1 = “Not at all close” to 4 = “As close as possible” for the closeness to God item. For the remaining BMMRS measures, including Belief in a higher power, a central tenet of many religious/spiritual traditions was assessed with one item: “I believe in a God who watches over me.” Meaning, the attribution of a divine purpose to one’s life, was assessed with 2 items: “The events in my life unfold according to a divine or greater plan” and “I have a sense of mission or calling in my own life.” Both Belief and Meaning had 4-point response scales which ranged from 1 = “Strongly disagree” to 4 = “Strongly agree.” Forgiveness was assessed using three items, frequency of having forgiven oneself, having forgiven
others, and knowing that one is forgiven by God, with a 4-point response scale from 1 = “Never” to 4 = “Always/Almost always.” The Private Religious Practices domain, which characterizes personal religious behaviors that are “non-organizational” and “informal,” included five items: frequency of private prayer, meditation, watching or listening to religious programs on TV or radio, reading the religious literature, and saying prayers before or after meals. The first four items had an 8-point response scale (1 = “Never” to 8 = “More than once a day”), while the last item had a 5-point scale (1 = “Never” to 5 = “At all meals”). The final three domains consist of the commonly used “distal” measures of religiosity, including Organizational Religiousness (two items on frequency of religious service attendance and of participation in other activities at a place of worship, with a 6-point response scale from 1 = “Never” to 6 = “More than once a week”), Religious Preference (1 item each on the adolescents’ own and their parent’s religious preference); and global Self-Ranking of one’s overall level of religiosity and spirituality (2 items: “To what extent do you consider yourself a religious [spiritual] person?” with a 4-point response scale ranging from 1 = “Not religious [spiritual] at all” to 4 = “Very religious [spiritual]”). Internal reliability for the BMMRS, ranging from .71 to .87. The test-retest reliability of the test for the present sample was 0.89. The BMMRS, or portions of it, has been used in numerous studies of adults including the national 1998 General Social Survey (GSS) (Idler et al., 2003; Shahabi et al., 2002; The Fetzer Institute and Kercher Center for Social Research; Underwood and Teresi, 2002), and has established psychometric properties among adults. This test was used for classifying the subjects as high or low on religiosity.

2.(a) Brief Religious Coping Questionnaire (Pargament, 1998)

The Brief Religious Coping Scale (Brief RCOPE: Pargament et al., 1998) is a simplified version of the long-form RCOPE (Pargament et al., 2000; Pargament et al., 1998) which contains 215-item subscales. 14-item Brief RCOPE is developed to compensate for the weakness of the RCOPE. The Brief RCOPE (Pargament et al., 1998) is composed of two subscales, a Positive Religious Coping scale and a Negative one. The Positive scale includes seeking spiritual support, religious forgiveness, collaborative religious coping, spiritual connection, religious purification, benevolent religious appraisal and religious focus. The Negative Religious Coping methods include spiritual
discontent, punishing God reappraisals, interpersonal religious discontent, demonic reappraisal, and reappraisal of God’s power. The preliminary Brief RCOPE (Pargament et al., 1998) demonstrated satisfactory internal consistency. Cronbach alphas were .87 for the Positive religious coping and .78 for the Negative religious coping. The two scales were uncorrelated (r = .03), which means they measure different constructs. The result of the two-factor structure from the preliminary Brief RCOPE study indicated that the research direction of positive and negative religious coping is a promising one. The Cronbach alpha for the present sample was 0.84 for the positive religious coping and .75 for the negative religious coping. The reliability and validity of Brief RCOPE on Indian sample has been developed by Tarakeswar, et al. (2005).

2.(b) Ways of Coping Questionnaire (Folkman & Lazarus, 1988)

Ways of Coping Questionnaire was designed by Folkman and Lazarus (1988) to identify the thoughts and actions an individual uses to cope with stress of everyday living. It consists of 66 items and has eight sub-scales, and measures eight ways of coping, namely Confrontive Coping, Distancing, Self-Controlling, Seeking Social Support, Accepting Responsibility, Escape-Avoidance, Planful-Problem Solving and Positive Reappraisal. There is no time limit, and most respondents take 10-15 minutes to complete it but older respondents may take longer time. The individuals respond to each item on a 4-point Likert-type scale indicating frequency with which each strategy is used: 0 indicated “does not apply and/or not used”, 1 indicates “used somewhat”, 2 indicates “used quite a bit”, and 3 indicates “used a great deal”. The test has a satisfactory test-retest reliability, and alpha coefficients for the original scales range from .61 to .79: Confrontive Coping .70, Distancing .61, Self-Controlling .70, Seeking Social Support .76, Accepting Responsibility .66, Escape-Avoidance .72, Planful-Problem Solving .68 and Positive Reappraisal .79. For the present sample the test retest reliability was .86. This questionnaire has been widely used in Indian setting by Mhaske (2009), Sharma & Tung (2009), and Pathak & Tung (2010).
3. Measures of Well-Being

(a) Psychological Well-Being Scale (Ryff, 1984)

Ryff’s 18 item Psychological Well-Being Scale (PWB) was used to objectively assess the participants on six dimensions of psychological well-being, namely: autonomy (a), personal growth (pg), environmental mastery (em), purpose in life (pl), positive relations with others (pr) and self-acceptance (sa). The combined scores can also provide an overall well-being total. The scale is presently regarded as the best objective measure of psychological well-being (Conway & Macleod, 2002) and has received extensive cross-cultural validation (Staudinger, Baltes & Fleeson, 1999). The 18 item scale used in this study is a shortened version of Ryff’s 120 item scale. Participants were required to respond to questions ranked from “strongly agree” to “strongly disagree”. The six subscales have high levels of internal consistency and high correlation with the 20-item parent scale. The levels of internal consistency and correlation with the parent scale as given in the manual of the test are: Autonomy .83 and .97, personal growth .85 and .97, environmental mastery .86 and .98, purpose in life .88 and .98, positive relations with others .88 and .98 and self-acceptance .91 and .99. The test-retest reliability for the present sample was 0.78 and the scale has been widely used in Indian setting by Rai & Mohan (2008) and Mohan, Sehgal, & Tripathi (2008).

(b) Subjective Well-Being Measures

(i) Oxford Happiness Questionnaire- Short Form (Hill & Argyle, 2002)

The Oxford Happiness Questionnaire was used to assess the happiness of an individual. The questionnaire consists of 8 items, the subject has to give response on a 6-point Likert scale the ranging from strongly disagree to strongly agree. The test-retest reliability for the present sample was 0.86.

(ii) The Satisfaction with Life Scale, SLWS (Diener et al., 1985)

The SLWS is a five-item seven-point Likert scale developed by Diener et al. (1985). According to Pavot and Diener (1993), the SLWS assesses a-person’s global judgment of life satisfaction. The five statements are simple statements that allow the respondent to offer a judgment on the idealness of one’s life, satisfaction with one’s life, conditions of one’s life, as well as the degree to which one agrees that one has obtained the important things, and whether one would change things if one could do it over again.
The SLWS has strong internal reliability and moderate temporal stability. The test-retest reliability of the scale for the present sample was 0.93. This scale had been used by Saini & Gupta (2007) and Kaur & Gupta (2008) in Indian setting.

(iii) Positive Affectivity and Negative Affectivity Scale (Watson et al., 1988)

Positive and negative affect was measured with the Positive and Negative Affect Scale (PANAS; Watson, Clark & Tellegen, 1988). The PANAS contains a 10-item positive affect and a 10-item negative affect subscale. Words such as “interested,” “strong,” and “inspired” measure positive affect, and words such as “guilty,” “afraid,” and “hostile” measure negative affect. A five point Likert scale was used where a score of five indicating “extremely” characteristic of me, and one indicating “very slightly or not at all” characteristic of me. Internal consistency was rated as excellent with alpha coefficients ranging from .84 to .90. The alpha coefficient for both the positive and negative affect for the present sample was 0.86 and 0.81 respectively.

(c) Social Well-Being Scale (Keyes, 1998)

This 15 items scale used to access the social well-being of individuals on five dimensions of social well-being namely: social acceptance, social actualization, social contribution, social coherence and social integration. The aggregate scores provide the overall social well-being. This is a seven point Likert scale. Some items have been reverse coded to make positive and negative dimensions consistent. Participants were required to respond to questions ranked from "strongly agree" to "strongly disagree". The test-retest reliability of the test for the present sample was .85. The social well-being scale has been used by Keyes (2002) and Shapiro & Keyes (2007).

(d) Physical Symptom Questionnaire (Seaward, 1999)

This scale contains 25 items related to physical illness. The responses are given in the form of Yes/No. Every Yes response is assigned 1 mark and No response 0 mark. Test-retest reliability for the present sample was 0.89. The test has been used in Indian setting by Kaur and Gupta (2011).
**Design**

In order to investigate the main and interactive effects of religiosity and gender on ways of coping and well-being of senior citizens living in old age homes and with family separately, the data was treated by two-way ANOVA. A $2 \times 2$ factorial design involving two levels of gender (male and female) and two levels of religiosity (high and low) was used for investigating the main and interactive effects of independent variables on the dependent variables i.e. ways of coping and well-being. The design was replicated 20 times. Hence there were 80 subjects living in old age homes (40 males and 40 females) and 80 living with family (40 males and 40 females). Each group thus consisted of 20 subjects.

In order to investigate the main effect of living place and its interaction with gender and religiosity on the dependent variables of ways of coping and well-being of senior citizens, a $2 \times 2 \times 2$ factorial design involving two living conditions (living with family and living in old age homes), two levels of religiosity (high and low) and two levels of gender (male and female) was used. The design was replicated 20 times. Hence there were 160 subjects 80 males (40 males living with family and 40 males living in old age homes) and 80 females (40 females living with family and 40 females living in old age homes). Each group thus consisted of 20 subjects.

**Procedure**

The permission for data collection was taken from the concerned authorities of the homes/institutions for the aged. The home/institution personnel were requested to help the investigator to have smooth interaction with the senior citizens for research purpose. The senior citizens were interviewed before the administration of inventories and questionnaires with the aim of establishing rapport as well as to get personal information. The interview lasted about 10 minutes in all cases. All the inventories and questionnaires were of self-administering type. However, when the participant did not understand any item, the connotation of the item was explained to the participant. The subjects were also told not to skip any item. The subjects were informed that all the data will be treated confidentially, and that no participants’ details will not be disclosed to any other person. All the subjects were contacted in old age homes and in their respective homes. All the
subjects fulfilled the sample criteria. The investigator collected the data personally from the senior citizens living in old age homes and living with family as well. The tests were administered in three sessions with an interval of 30 minutes between sessions. In each session three tests were administered; an interval of 5 minutes interposed between tests. Queries and concerns raised by the participants were attended to during the testing. The response sheets were scored in accordance with the procedure given in the manual. The data were collected individually.