



# Religious Women's Coping with Infertility: Do Culturally Adapted Religious Coping Strategies Contribute to Well-Being and Health?

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## Abstract

**Background** Infertility is a source of stress, particularly in pronatalist societies in which a lifestyle without children is viewed as an unacceptable option. The present study examined the relationship between the use of culturally adapted religious coping strategies and emotional adjustment among women coping with fertility problems.

**Methods** This is a cross-sectional correlational study. One hundred and eighty-six religious Israeli women undergoing fertility treatment filled out questionnaires assessing their use of culturally adapted religious coping strategies and emotional adjustment (distress/well-being).

**Results** A path analysis showed that the culturally adapted religious coping strategies of seeking the support of Rabbis and seeking the support of God had a strong correlation with reduced psychological distress, but not with enhanced psychological well-being. Seeking approval and recognition from the community was correlated with reduced distress and enhanced well-being. However, seeking ties and belonging to the community was correlated with increased psychological distress and reduced psychological well-being. Finally, women without children experienced greater psychological distress than women with children and sought more support of Rabbis and fewer ties with the community.

**Conclusions** In a pronatalist culture that sanctifies childbirth, infertility is a source of significant distress. Professionals' awareness of the culturally adapted religious coping strategies utilized by their clients may help them conduct culturally sensitive intervention, which may greatly help to enhance emotional adjustment. Future research is recommended to develop instruments that measure culturally adapted strategies and their influence on emotional adjustment over time, in different states of health while comparing different cultures.

**Keywords** Infertility · Sociocultural · Coping · Religion · Distress · Well-being

## Introduction

The wish for parenthood is a strong norm. Consequently, experiencing difficulties in bearing a child can be highly stressful [1, 2]. This experience might be especially difficult for women whose socialization largely involves the expectation to become a mother [3, 4]. When the culture of belonging perceives motherhood as the essence of womanhood, infertility can cause psychological distress [5–7], supposedly

reflecting the extent to which these women have internalized the norm and social expectations that they are unable to fulfill [5].

The emotional impact of infertility might even include the disruption of women's identity,

relationships, and sense of meaning [8], and the sense of a loss of control over planning one's life [9, 10]. In studies of women undergoing fertility treatments, many of the participants reported that this feeling was not limited to the area of infertility, but invaded other aspects of their personal identity as well, such as feminine identity [11] and social identity [12, 13]. Even though the treatments sometimes solve the problem, each treatment cycle has low success rates, 15–18% annually since 2005 [14]. Hence, some women are left coping with infertility for months or even years. During this period, they might perceive that they can do nothing to influence the outcome [15] besides adhering to a treatment that does not guarantee success.

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## Infertility in the Jewish Society in Israel

In the Jewish society in Israel—the focus of the present study—parenthood is a very powerful cultural norm [16], and the social imperative is to have children [17]. The preoccupation with the birth rate in Jewish society and the centrality of the family in Israeli culture stem from a combination of various factors. First is the influence of Jewish tradition, in which parenthood is a commandment (Mitzvah) and is viewed as a moral value. “Go forth and multiply and replenish the earth” is the first commandment mentioned in the Pentateuch (Genesis 1:28) and fertility itself is considered a blessing (Deuteronomy 7: 13–14). In addition, the wish to create a Jewish society in Israel has extended the norm of having children from being an individual choice to a national achievement [11]. Another influencing factor is the trauma of the Holocaust. Since the establishment of the State, the Jewish society in Israel has felt pressured by the need to increase the population, to replace the six million Jews murdered during the Holocaust, or to “compensate” for what was lost [18].

These aspects led to the perception and shaping of a pronatalist social policy, which determines that all costs of in vitro fertilization (IVF) for women aged 18 to 45 are covered by government health insurance until the birth of up to two children [14]. This policy explains why the State of Israel is one of the leading countries in the world in the field of IVF, with rates increasing annually. Between 1990 and 2015, the number of IVF cycles increased from 5169 to 41,704, dramatically more than the increase in the size of the population, and the number of IVF cycles per 1000 women aged 15–49 has risen from 4.5 to 21.3 [14]. The prevalence of fertility problems in Israel, according to the Ministry of Health data [19], is similar to the global mean—16% and 15%, respectively [20]. Yet, the rate of IVF treatments in Israel in relation to the population of women of fertile age is significantly higher than in other countries [21], five times higher than the mean in Europe and ten times higher than the international mean [22]. In 2015, for instance, 5% of all live births in Israel were the result of IVF treatments compared to 3% a decade ago [14]. However, success rates (live births per treatment cycle) remain quite stable, 15–18% annually since 2005 [14]. Even though this policy ensures a high level of accessibility and equality in the provision of fertility treatments [23], it also creates a culture of perseverance [24], in which women become entrapped in the attempt to become pregnant [5].

## Infertility in the Religious Jewish Society in Israel

The norm of having children, therefore, has a prominent place in the public discourse in Israel. The religious Jewish society in Israel, which is the focus of the present study, perceives childbirth as having even greater significance. In this society, which is characterized by religious belief and adherence to the

Jewish Halakhah, which means keeping the religious commandments [25], motherhood is considered as a central goal of married life and a major source of women’s happiness and self-fulfillment [26]. Therefore, a religious woman’s childless state is viewed as undermining her religious fidelity to the Halakhah (Jewish Law). Raising a large family while living a religious lifestyle is considered as a social ideal and families that adhere to this norm are held in high esteem and enjoy high social prestige [27].

A religious lifestyle typically includes many communal child-related activities in the synagogue and community centers, as well as ceremonies related to childbirth and childrearing [28]. Therefore, intensive interaction with the religious community becomes difficult for childless women, increasing the social pressure induced by the stress of infertility. In this reality, an effective coping strategy is needed to adjust to the situation. Indeed, previous studies among women undergoing fertility treatment identified coping strategies that were significant for better emotional adjustment, improved psychological well-being, and reduced distress. Examples include encouraging positive reinterpretation and self-nurturing [29, 30], concentrating on life, and maintaining a balance between life and the fertility problem and its treatments [5]. However, these studies focused on the individual, and it is doubtful whether they can adequately explain the complexity of the relationship between coping with infertility and emotional adjustment from a sociocultural perspective [5]. From a sociocultural perspective, women coping with infertility shape their distress and their story within a framework of complex interactions with the collective culture and within specific interpersonal and social contexts [13, 31]. This is the central argument of the current article, which examines the association between the use of religious and cultural coping strategies and emotional adjustment.

## The Present Study

The aim of the present study was to examine the association between the use of culturally adapted religious coping strategies and emotional adjustment among religious Jewish women with fertility problems. Since, as mentioned above, the study population comprised religious Jewish women, we chose to examine coping strategies based on the role of religion in the lives of religious people coping with stress and crisis situations. The development of empirical research in recent decades has broadened the understanding of the role of religion as a coping strategy in times of crisis, and has identified different factors that include religion in people’s lives in the effort to triumph over unpleasant events and reduce the damaging effect of psychological stress [32–34].

We focused on three culturally adapted religious coping strategies: Seeking the Support of God, Seeking the Support of Rabbis, and Seeking the Support of the Community. These

measures had been developed in previous studies among Christians, such as Pargament, Koenig, & Perez [35], and among Jews in the United States living as a minority within a non-Jewish population [36]. With the aim of adapting existing religious coping measures to the population of Jewish women in Israel, we conducted a preliminary study [37]. Measurement scales were constructed for each of these three main religious coping strategies, and the relationship between each coping strategy and emotional adjustment was examined: increased/decreased well-being or emotional adjustment while coping with a stressful situation. That study was carried out among Jewish women in Israel. We found that religious Jewish women made prevalent use of the three aforementioned religious coping strategies in situations of stress and crisis. Seeking the support of God was found to be correlated with reduced psychological distress, similar to previous studies among Jews, which found that seeking this support serves as a psychological resource for reducing psychological distress, anxiety, and depression and for increasing the sense of joy [38]. In our previous study and other studies, Seeking the Support of Rabbis was found to be a central strategy among the Jewish population and was associated with better emotional adjustment [39, 40]. Seeking the Support of the Community, intended for the religious community to which the person belongs, was found in our study and in previous ones, to be perceived by religious people as a source of meaningful support and as a help with successful coping.

The religious community offers the opportunity to develop social ties with a large number of people with a similar worldview and similar values and goals, who can help the individual in times of difficulty [37, 41]. These social ties were found to be associated with happiness, low rates of depression, loneliness, and anxiety, and as enhancing the positive aspects of life [42, 43].

We also examined the differences in the study variables between women without children and women with at least one child. The social norm and religious ideology pertaining to a high birthrate are deeply rooted in the women's religious being. The Halakhic rule interprets the fertility commandment as pertaining to at least one child of each gender. Being a mother (having at least one child) does not guarantee better emotional adjustment for women in a religious community. However, it may be claimed that achieving a certain level of motherhood, albeit less socially desirable than having multiple children, can contribute to social adjustment.

The study hypotheses were as follows:

*H1:* Culturally adapted religious coping strategies (Seeking the Support of God, Seeking the Support of Rabbis, and Seeking the Support of the Community) would be associated with better emotional adjustment, i.e., lower distress and greater well-being.

*H2:* The emotional adjustment of women without children will be worse than that of women with children. We will also test whether these two groups of women differ in their use of the religious coping strategies.

## Method

### Participants

Eligibility criteria to participate in this study included being a religious Jewish woman, with or without children, who is undergoing medical treatment for infertility. Religiosity was determined by self-reported religious identity and by scores on the religiosity scale (as described below). The sample included 186 religious Jewish women in Israel, who were married ( $M = 6.35$  years,  $SD = 4.33$ ), between the ages of 22 and 45 years ( $M = 30.60$ ,  $SD = 5.88$ ), and were coping with fertility problems and undergoing fertility treatment (Table 1).

Of these, 55% had no children and 45% had at least one child. Among the women with children, the mean number of children was 1.87 ( $SD = 1.29$ ); 46% of them had one child and 33% had at least two children. Regarding religious identity, 65% of the women defined themselves as modern Orthodox and 35% as ultra-Orthodox. The women were sampled from

**Table 1** Sample characteristics ( $N = 186$ )

Characteristic	Mean ( $\pm$ sd)/percent
Age	30.6 ( $\pm$ 5.9)
Number of years married	6.3 ( $\pm$ 4.3)
Childless	55%
Education	
Academic	58%
Post-high school (non-academic)	42%
Employed	
Full-time	54%
Part-time	34%
Undergoing in vitro fertilization (IVF) <sup>a</sup>	50%
Measure of religiosity	
Keeping Mitzvot	95%
Religious belief	96%
Religious identity	
Modern Orthodox	65%
Ultra-Orthodox	35%
Recruitment source	
IVF units in three hospitals	74%
Fertility counseling institute	8%
Fertility website	18%

<sup>a</sup> The remainder is undergoing less invasive treatments (e.g., hormonal treatment provided in pills or via injection)

IVF units in three hospitals (from the first, 76 women [41% of the sample], from the second, 41 women [22%], and from the third, 20 women [11%]), 15 women (8%) were sampled from a religious Jewish fertility counseling institute, and 34 women (18% of the sample) from a religious Jewish fertility website.

## Measures

### Socio-demographic Background

Socio-demographic background data were collected using a self-report questionnaire including age, number of years married, education, employment, number of children, and type of treatment receiving for the fertility problem.

### Extent of Religiosity

The extent of religiosity of the women in the sample was examined using a self-report questionnaire in which they were asked to define their religious identity (non-religious, modern Orthodox, or ultra-Orthodox) and the Measure of Religiosity Scale [44], which was developed to examine individuals' extent of religiosity in the Jewish population in Israel. The tool includes 26 items that comprise two subscales: the Keeping *Mitzvot* scale, which includes 20 items (e.g., “Do you travel on the Sabbath?”  $\alpha = 0.78$ ) and a Religious Belief scale, which includes six items (e.g., “Do you believe in God?”  $\alpha = 0.76$ ). All items required a dichotomous response (yes/no). The score is calculated by counting the number of positive responses on each subscale. A higher score indicates a higher level of religiosity.

### Religious Coping for Religious Populations—JRP-COPE [37]

This questionnaire includes 36 items that measure the use of three culturally adapted religious coping strategies to cope with a stressful situation in Jewish communities. Eighteen items measure Seeking the Support of God (e.g., “Do what I can and put the rest in God's hands”,  $\alpha = 0.95$ ), 10 items measure Seeking the Support of Rabbis (e.g., “Turn to the Rabbi to give me a sense of belonging”,  $\alpha = 0.92$ ), and eight items measure Seeking the Support of the Community (e.g., “I seek support from people in the community”,  $\alpha = 0.84$ ). In the present study, the respondents were asked about the extent of their utilization of each item as a way of coping with infertility. Answers were provided on a 5-point scale (from 1 = not at all to 5 = very much). To examine the distribution of items for the scales of the present study, factor analysis with Varimax rotation was performed, into which the 36 questionnaire items were entered. Four factors were extracted, which together explained 71% of the variance in the responses: (1) Seeking the Support of God was measured by 18 items and explained 52% of the variance; (2) Seeking the Support of Rabbis was

measured by 10 items and explained 13% of the variance; Seeking the Support of the Community was represented by two factors: (3) Seeking Ties and Belonging to the Community (e.g., “Seeking the Support of the Community”, six items,  $\alpha = 0.89$ ), and (4) Seek Approval and Recognition from the Community (e.g., “Feel that members of the community recognize my skills and capabilities”, two items,  $\alpha = 0.60$ ). The score for each scale was computed by calculating the mean rating for items included in the scale. A high score indicates greater utilization of this strategy as a way of coping with infertility.

### Emotional Adjustment (Infertility-Specific Well-Being and Distress Scales) [45]

This questionnaire includes 20 items describing different emotions and was originally developed for a study on women undergoing fertility treatment. Ten items measure psychological distress (e.g., lonely, angry, worried;  $\alpha = 0.90$ ) and 10 items measure psychological well-being (e.g., happy, enthusiastic, optimistic;  $\alpha = 0.89$ ). The questionnaire was translated into Hebrew using the back-translation method [46]. In the present study, the respondents were asked to rate the extent to which each item characterized their feelings lately. The answers were scored on a 5-point scale (1 = “not at all how I feel” to 5 = “exactly how I feel”). To examine the distribution of items in the subscales of the present study, factor analysis with a Varimax rotation was performed, yielding two factors, clearly grouping the distress and well-being items separately (items loaded above 0.61 on one factor and lower than 0.35 on the other one). These findings supported the creation of two subscales with 10 items each: (1) psychological distress, which explained 29% of the variance, eigenvalue = 5.83,  $\alpha = 0.91$ ; (2) psychological well-being, which explained 27% of the variance, eigenvalue = 5.40,  $\alpha = 0.90$ .

An average score was calculated for each subscale. A high score on the psychological well-being scale indicated an elevated level of emotional adjustment and a high score on the psychological distress scale indicated a lower level of adjustment. The correlation between psychological well-being and psychological distress was negative and significant, but moderate ( $r = -.42$ ,  $p = 0.01$ ), which justified the use of the two measures separately.

## Procedure

The study was approved by the Research Ethics Committees at the hospitals from where participants were sampled and at the School of Social Work of the Tel Aviv University. All religious Jewish women who were eligible to participate and expressed willingness to cooperate with the study were recruited. In the hospitals, the questionnaires were administered by an experienced research assistant from the religious sector.

The data were collected from January to August 2010, twice a week, by distributing the questionnaires on a different day each week to ensure proper dissemination among the entire population of women undergoing fertility treatment. In the fertility counseling institute, the recruitment of women was performed on different days of the week by the institute's secretary, according to the woman's religious self-definition. Participants were also recruited via the Internet, from an online fertility forum on a Jewish religious website ([www.kipa.co.il](http://www.kipa.co.il)). The online questionnaire was identical to the hard copy. Participants were asked to fill in the anonymous questionnaire online, which would be sent automatically via the address shown on the website. The online questionnaire data were saved in a way that ensured that each participant could fill in the questionnaire only once.

It was explained to all the study participants that the study was intended to assist in understanding different issues related to coping with fertility problems, referring to the religious-sociocultural context, and that the questionnaire was completely anonymous. The participants signed an informed consent form stating that they had read the instructions and were willing to participate in the study. Altogether, paper questionnaires were distributed to a total of 300 women, of whom 285 consented and 224 (75%) returned the questionnaire. Twenty-one questionnaires were excluded because they were very partially filled in and nine because the participants defined themselves as traditional and not religious. Eight women did not fill in the emotional adjustment scales, resulting in a final sample of  $N = 186$ .

### Statistical Analyses

We used  $g^*$ power [47] to compute the sample size needed for equivalent multivariate analyses conducted with linear regression: for a medium effect size in terms of percent of explained variance, at a two-sided probability level of 0.05, with seven indicators (the total number of indicators used, see below), power of 0.90 would be obtained with a sample of 166 women. Therefore, our final analysis sample of 186 women seemed to be adequate.

The research model was examined via a path analysis conducted with Amos 18 software. The fully manifest path analysis included seven observed variables: one exogenous variable (“childless”), and six endogenous variables—the four religious coping strategies (“Seeking the Support of God”, “Seeking the Support of Rabbis”, “Seeking Ties and Belonging to the Community”, and “Seeking Approval and Recognition”) and two dependent variables (“Psychological Well-Being” and “Psychological Distress”). The residuals of the presumed mediators and outcomes were allowed to correlate; the result was a negative correlation.

To examine the goodness of fit between the model and the data, we used the following fit indices: (1)  $\chi^2$ —“Chi square,”

compares the observed variance-covariance matrix to the predicted variance-covariance matrix, this measure fits the data when the ratio between the value of  $\chi^2$  and the model's degrees of freedom does not exceed 2:1; (2) NNFI—“Non-Normed Fit Index”, proportion in the improvement of the overall fit of the hypothesized model compared to the independence model, theoretically ranges from 0 (poor fit) to 1 (perfect fit), considered satisfactory when  $> 0.90$ ; (3) GFI—“Goodness of Fit Index”, is the proportion of variance accounted for by the estimated population covariance, theoretically ranges from 0 (poor fit) to 1 (perfect fit), considered satisfactory when  $> 0.90$ ; (4) RMSEA—“Root Mean Square Error of Approximation”, calculates the size of the standardized residual correlations, theoretically ranges from 0 (perfect fit) to 1 (poor fit), considered satisfactory when  $< 0.05$  [48].

## Results

### The Use of Culturally Adapted Religious Coping Strategies

The distribution of the use of the culturally adapted religious coping strategies and their intercorrelations are presented in Table 2. It can be seen from the table that Seeking the Support of God is the most prevalent type of coping strategy in this sample, followed by Seeking the Support of Rabbis. Least prevalent were the strategies related to seeking community support: Seeking Ties and Belonging to the Community and Seeking Approval and Recognition from the Community. In addition, it can be seen that the culturally adapted religious coping strategies were mostly intercorrelated (with the exception of Seeking Approval and Recognition from the Community). The correlations were moderate and substantially lower than the internal consistencies of these scales, providing additional support for the distinction among the strategies.

### Differences Between Groups in the Research Measures and the Participants' Demographic Characteristics

To examine the differences in research measures and participants' characteristics between women with and without children, we performed  $t$  tests. The findings are presented in Table 3, indicating significant differences between these groups in Seeking the Support of Rabbis, in Seeking Ties and Belonging to the Community, and in psychological distress levels. Women without children experienced greater distress and reported greater use of Seeking the Support of Rabbis and less use of Seeking Ties and Belonging to the Community. No differences were found between the groups on the other variables, except for age (which was unrelated to

**Table 2** The use of religious coping strategies, Means, Standard Deviations, and intercorrelations

	Mean	SD	Seeking the Support of God	Seeking the Support of Rabbis	Seeking Approval and Recognition from the Community	Seeking Ties and Belonging to the Community	Well-being
Seeking the Support of God	4.17	0.5	–				
Seeking the Support of Rabbis	2.37	1.1	0.41**	–			
Seeking Approval and Recognition from the Community	2.99	1.1	0.14	0.17*	–		
Seeking Ties and Belonging to the Community	2.21	0.9	0.23**	0.49**	0.38**	–	
Well-Being	3.45	0.8	0.11	0.06	0.18*	–0.16*	–
Distress	2.49	0.9	–0.18*	–0.29**	–0.12	0.22**	–0.46**

\*  $p < 0.05$ \*\*  $p < 0.01$ 

emotional adjustment and therefore was not included in the model).

In addition, we examined differences in the research measures among five recruitment source groups using analysis of variance and Scheffe's post hoc tests. No significant differences in the women's characteristics or the study measures were found between the groups except in the variable Seeking the Support of Rabbis, which was highest among women recruited through the religious Jewish fertility counseling institute, compared to other recruitment sources, since this is the reason women contact the institute. Thus, overall, the findings do not show fundamental differences between the groups and therefore we did not control for recruitment source in the multivariate analyses.<sup>1</sup> *The association between culturally adapted religious coping strategies and emotional adjustment.*

As mentioned above, a path analysis was used to examine a model including all strategies and their associations with emotional adjustment, and differences between women without children and women with at least one child. The structural model, presented in Fig. 1, showed good fit to the data: ( $\chi^2 [N = 186] = 178.595, p < 0.001; df = 1.57; NNFI = 0.964; CFI = 0.985; RMSEA = 0.057$ ). The model partly supported the study hypotheses. As hypothesized, Seeking the Support of God and Seeking the Support of Rabbis were associated with lower distress (but not with greater well-being). Opposite findings were found for the two community related variables: While Seeking Approval and Recognition from the Community was found to be correlated with better adjustment (greater psychological well-being and less psychological distress), as hypothesized, Seeking Ties and Belonging to the Community was found to be correlated with the two

emotional adjustment variables, contrary to the observed direction. It was associated with elevated levels of distress and lower levels of well-being. Differences between women with and without children were also examined in the general research model. Women without children were found to utilize Seeking the Support of Rabbis to a greater extent, but sought less belonging to the community and experienced greater psychological distress.

## Discussion

The present study examined the relationships between using culturally adapted coping strategies and emotional adjustment among women with fertility problems. The findings supported the hypotheses. A path analysis showed that the culturally adapted religious coping strategies of Seeking the Support of Rabbis and Seeking the Support of God were highly correlated with reduced psychological distress, but not with enhanced psychological well-being. Consistent with our first hypothesis, Seeking Approval and Recognition from the Community was correlated with both reduced distress and enhanced well-being. However, contrary to the hypothesis, Seeking Ties and Belonging to the Community was correlated with increased psychological distress and reduced psychological well-being. The second hypothesis was also supported, as differences were found between women without children and women with at least one child. Women without children experienced greater distress and reported greater use of Seeking the Support of Rabbis and less use of Seeking Ties and Belonging to the Community.

The study findings that indicate a correlation between the culturally adapted coping strategies and emotional adjustment are in keeping with the Self-Regulation Model-SRM [49] and with studies that examined the relationships between coping with infertility and emotional adjustment from a cultural perspective [50, 51]. Therefore, when illness undermines

<sup>1</sup> Since the counseling institute is equal to high seeking of support of Rabbis, and these women did not differ from other participants in any other respect, controlling for recruitment source may have removed valid variance in the variable Seeking the Support of Rabbis and artificially diminished the contribution of this variable.

**Table 3** The differences between women without children and women with at least one child

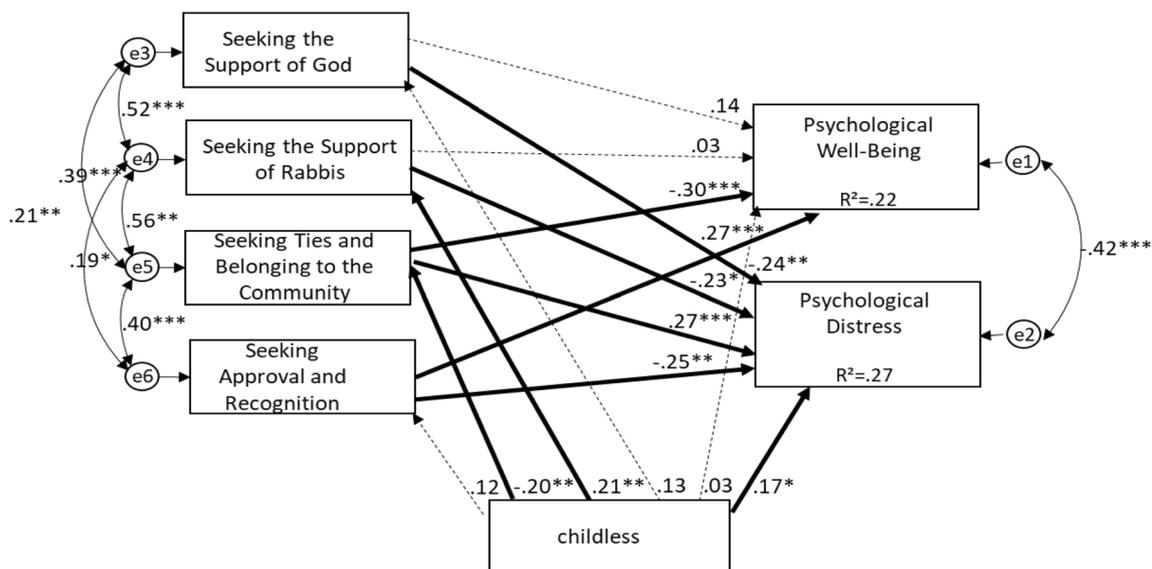
Characteristic	Without children		With at least one child		Difference	
	Mean ( <i>N</i> = 102)	SD ( <i>N</i> = 102)	Mean ( <i>N</i> = 84)	SD ( <i>N</i> = 84)	<i>t</i>	<i>df</i>
Age	29.28	5.9	31.84	5.1	2.55*	172
Number of years married	4.38	3.7	8.57	3.6	1.55	172
Education (years)	14.42	2.2	15.31	2.5	0.12	153
Seeking the Support of God	4.25	0.5	4.07	0.6	1.45	175
Seeking the Support of Rabbis	2.63	1.1	2.07	0.9	2.97*	175
Seeking Approval and Recognition from the Community	2.97	1.0	3.02	1.1	0.25	175
Seeking Ties and Belonging to the Community	2.51	0.8	2.18	0.9	2.63*	175
Well-being	3.38	0.8	3.53	0.8	-0.82	183
Distress	2.67	0.9	2.26	0.9	2.96*	184

\*  $p < 0.05$ 

people's state of health or when individuals are coping with a health threat, they will actively participate in a health-improvement process through developing and implementing a coping plan to achieve self-regulation [49]. Even though this is a generic model, which applies to all individuals coping with health threats, its categories might differ from one person to another, who are undergoing such processes in different cultural contexts [52]. In accordance with this model and as shown by the findings of the present study, the religious mechanism may be incorporated into the coping process in different ways as well as into the evaluation of the coping outcomes [33, 34]. This finding is especially conspicuous in a society such as Israel, where parenthood is perceived as a central goal of married life [27].

The frequency of use of culturally adapted religious coping strategies, as emerged from the findings, also supports the importance of examining coping with stressful and health-related situations from a sociocultural perspective. The present study broadens the understanding of the use of unique culturally adapted strategies and their relationship to emotional adjustment in other chronic or long-term situations, which, despite not being life-threatening, still impair quality of life. Therefore, it is not surprising that religious women, who belong to a pronatalist society, turn to religious mechanisms to cope with their situation.

The findings raise the possibility that two of the culturally adapted religious coping strategies are particularly effective in coping with fertility problems: Seeking the Support of God



**Fig. 1** The Manifest Path Analysis examining the associations between culturally adapted religious coping strategies and emotional adjustment (unstandardized coefficients). Arrows in bold indicate significant paths; this model presents all the associations among the culturally adapted

religious coping strategies and between the culturally adapted religious coping strategies and emotional adjustment, and the comparison between women with and without children. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

and Seeking the Support of Rabbis, which were associated with reduced psychological distress. It is impossible to determine the direction of the associations, i.e., use of these strategies could also be driven by distress; yet the nature of the support perceived to be provided by God and by Rabbis provides reasons to believe that these strategies may provide relief for religious persons using them.

Seeking the Support of God in the context of emotional adjustment to fertility problems is indicative of a general worldview of faith in God and the belief that He cares for everyone. The feeling of being able to connect with the transcendent power can lead to positive emotions that reduce psychological distress [53]. The findings of the present study are consistent with those of studies conducted in Orthodox Jewish populations in the United States, which indicated a positive correlation between this strategy and lower levels of worry, anxiety, and depression [36, 38].

Regarding Seeking the Support of Rabbis, the findings of the present study emphasize the importance of this strategy for successful coping with fertility problems. Why is this strategy significant? According to the conservation of resources (COR) theory [54], individuals try to conserve and increase their social and personal resources. In the face of loss or potential loss of an important resource, they can enter a state of stress, which will escalate when the missing resources impair their ability to cope with a goal that is especially important in their lives. In such a situation, in the absence of one resource, people will search other, compensatory, resources in the environment, to enable them to cope effectively with their new circumstances. Therefore, in accordance with this perception, a religious woman who has lost a resource that is an extremely important goal in her life, i.e., to give birth naturally, needs alternative resources to preserve her psychological well-being. While growing up in the religious Jewish society in Israel, she has been exposed to rabbinical figures, approachable religious leaders who serve as accessible sources of consultation and authority [55]. Thus, the woman perceives Rabbis as a meaningful environmental resource that can help her cope with fertility problems. According to findings of previous studies, this coping strategy may assist in successful coping with stress situations due to the woman's perception that Rabbis are able to help by providing spiritual support, and hence strengthening their religious faith. They might also provide emotional support as well as informative support intended to give guidance regarding appropriate treatment frameworks and ideas for easing their distress. Indeed, this coping strategy was found as central among the Jewish population [36, 39]. This understanding emphasizes that the use of this strategy can be motivated by distress. Conversely, however, Seeking the Support of God in coping with infertility might reduce distress. The sense of the ability to connect to God as a transcendent power, according to the religious worldview, might lead to positive emotions that reduce psychological distress [53].

The study findings reveal a complex picture regarding the two community related variables, Seeking Ties and Belonging to the Community and Seeking Approval and Recognition from the Community. Opposite associations with emotional adjustment emerged for these variables. The perception of belonging to the community and support from the community while coping with distress situations is that the community helps individuals receive valuable social and religious support based on enhancing self-esteem, providing information and friendship, and relieving stress [41, 56]. Nonetheless, for women coping with fertility problems, the community might also be the source of stress and tension.

In an attempt to explain this dialectical relation between two variables related to the community, we must consider the trigger with which the study participants were coping. It appears that Seeking Approval and Recognition from the Community is related to a sense of high self-worth. Even though the religious woman does not meet the social expectations of having children, she has the feeling that the community recognizes and appreciates her skills and capabilities and that despite her situation, she can be of assistance to others. As indicated by the study findings, focus on these positive aspects is associated with better emotional adjustment. Contrary to this, because women's experiences of infertility are shaped by sociocultural influences such as gender ideology, ethnic identity, and social class [57], a woman who does not live up to the social norms might have difficulty integrating into community systems. These might include negative reactions by members of the community toward the woman coping with infertility, such as pity or disregard of the problem. This is consistent with previous studies, which found that either the absence of support from the community when coping with fertility problems or dissatisfaction with the support that is received might increase psychological distress [4, 58, 59]. These negative reactions might also lead to a sense of guilt, anger, and/or distance, and lead to a low sense of certainty that the community can be relied upon when coping with infertility [4, 59].

As mentioned earlier, infertility and its treatments involve a heavy practical and emotional burden, which has an impact on many areas of life. Nonetheless, the study sample included women who already had two or more children, who were continuing to undergo fertility treatment cycles. As mentioned, the difference between women with and without children can be explained from a sociocultural perspective and might include bi-directional associations between psychological distress and the use of religious coping strategies. On one hand, psychological distress might lead women without children to Seek Ties and Belonging to the Community to a lesser extent than women with at least one child, since those without children cannot feel part of an accepted value system that perceives the ideal family in terms of the social norm of childbirth. Psychological distress might also lead women without

children to make greater use of the strategy of Seeking the Support of Rabbis in order to cope with their situation, compared with women with at least one child. On the other hand, as mentioned above, having even one child gives the women a sense of personal and group identity of motherhood and belonging to the community, which has positive implications for emotional adjustment, as was apparent from the findings of the present study.

This study had several limitations. First, the study was cross-sectional and therefore the causal direction of the associations between the culturally adapted religious coping strategies and emotional adjustment cannot be determined. Furthermore, the present study sampled women at different stages of treatment, recruited from both fertility clinics and Internet forums. The stage of fertility treatment that the women were undergoing in relation to the stressful situation and their distress could be critical regarding the use of culturally adapted religious coping strategies and might have a marked impact on the findings. Longitudinal studies could contribute to the examination of the use of culturally adapted religious coping strategies over time within a treatment cycle and between cycles, and to the way that they influence emotional adjustment.

Second, although the culturally adapted religious coping strategies were validated in a sample of mostly religious Jewish women, this was the first time they were examined among religious Jewish women coping with infertility. We recommend that future studies continue to develop and validate this coping measure, in general and particularly for the measure of Seeking Approval and Recognition from the Community, which had lower reliability.

Third, the sample was not a representative of the entire study population. We purposely recruited women from several different sources and geographic locations to partly offset this limitation and ensure a heterogeneous sample. However, it is not a representative sample and more than a third of the women approached were not included in the final sample. Thus, the generalizability of the findings is at question until further replications are conducted. We recommend that future studies examine these aspects in different cultural contexts, using intracultural and intercultural comparisons and examining emotional adjustment among women in different states of health.

### Recommendations for Future Research

The value of these results lies in the continued development of a theoretical basis for understanding women's religious coping with infertility and in providing insights to be examined in future studies in a specific sociocultural context. It would be interesting to perform a comparative examination of religious women (Jews and others) in a different country, and less religious women in Israel and elsewhere. It is important for this

comparison to include women's coping strategies as well as an examination of their emotional adjustment. Another interesting examination in this context would be a comparison between husbands and wives and a dyadic examination of their ways of coping with the stress of the need to adhere to social values. We recommend conducting future research to develop broader instruments for measuring religious and cultural variables. This step should include both the support of clergy, the support of the community, and the support of God in different populations and cultures. These factors and their relation to emotional adjustment can be examined over time as well as in different states of health while comparing different cultures.

### Conclusion

The medical perspective of coping with infertility is important, but it should be expanded to acknowledge the influence of the sociocultural context on the individual, both in developing and implementing a coping plan and in evaluating its effectiveness for emotional adjustment. In a pronatalist culture, which develops social policy to increase the birth rate, infertility is a source of significant distress. Health care professionals' awareness of the women's social identity, their cultural interpretation of distress factors, and their unique culturally adapted coping strategies might help them to perform a sensitive evaluation from a cultural perspective. This in turn will influence diagnosis and treatment and will be highly effective for enhancing the women's emotional adjustment.

### Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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