



Spirituality in Coping with Infertility Stigma: A Mixed Method Study

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Abstract

Spirituality and religion are often involved in the coping approaches of women facing the psychosocial challenge of infertility in several African cultures. This convergent mixed-methods study examined spirituality in coping with infertility-related stigma among 384 women attending evangelical churches in Zou County, Benin Republic. Data were collected using standardized instruments, the Assessment of Spirituality and Religious Sentiments (ASPIRES) and the COMPI Coping Strategy Scale (CSS), supplemented by focus groups and interviews with 45 church leaders. Quantitative data analysis was done with SPSS version 25.0, and a matched mixed-method approach was used for the qualitative data analysis. In terms of results, about spirituality, the Spiritual Transcendence scale was dominated by the Prayer Fulfilment subscale, and integration of qualitative findings confirmed a prayer-centred spirituality among surveyed women. For coping strategies, the frequency of use presented as respectively, active-confronting, meaning-based, passive-avoidance, and active-avoidance. In addition, the qualitative data revealed a three-stage coping trajectory: early-stage avoidance and shame; middle-stage indifference and adaptation; and late-stage meaning-based acceptance. Regarding spirituality in coping with infertility stigma, Spiritual Transcendence significantly predicted Coping Strategies, accounting for 20.3% of variance. In line with the massive prevalence of prayer in the women's management of infertility stigma, the

important remaining unexplained variance suggests that spirituality is much more a coping resource than a discrete strategy. The study contributes to understanding culturally situated coping mechanisms and informs interventions for mental health support in religious communities. Implications for clinical practice and church-based counselling are discussed.

Keywords: Infertility, stigma, spirituality, coping strategies, mixed-methods

Introduction

Infertility is often depicted as an invisible wound and a personal struggle. It affects millions of individuals and couples worldwide. One in every six people of reproductive age, which represents 17.5% of the global population (Cox et al., 2022; WHO, 2023) suffer in silence, shame, and misunderstanding. Specifically, women experience infertility as the absence of an event, wishing the occurrence of a pregnancy or a live birth (Bayefsky & Caplan, 2024; Cox et al., 2022). Beyond biomedical boundaries, infertility represents a profound existential crisis (Archetti, 2024). Navigating the challenges of infertility, women in pronatalist cultures pay a high tribute to the society as they experience all sorts of stigmatization described in several studies (e.g. Bornstein et al., 2023; Okantey et al., 2021; Taebi et al., 2021). Examples of challenges faced include stigmatization, marital dissolution, intimate partner violence, and community exclusion (Adane et al., 2024; Bawadi et al., 2024; Gerrits et al., 2023). Negative societal perception of infertility is responsible of such outcomes (Bornstein et al., 2023; Kuug, et al., 2023; Ofosu-Budu & Häninnen, 2021).

Consequently, women's mental health is affected by infertility as shown in several studies (Abdallah et al., 2024; Assaysh-Öberg; 2023; Foti et al., 2023). Nevertheless, they develop various coping strategies. From research findings, spirituality and religious engagement serve as primary coping resources against health difficulties (Dolcos et al., 2021, Litalien et al., 2022; Pirutinsky et al., 2020). This is particularly relevant in African contexts, where spiritual worldviews permeate daily life (Naab et al., 2025). Even though infertility is one of the adverse reproductive events in the pathway to becoming parent, the most addressed in research (Brigance & Brigance, 2023), spiritual aspects remain less investigated. This study addresses spirituality as a coping resource within the specific cultural and religious context of Evangelical Church in Benin Republic, specifically in the County of Zou. It integrates quantitative measures of spirituality with qualitative exploration of women with infertility's lived experiences to examine how they navigate the intersection of biological restraint, social blame, and spiritual meaning-making.

Infertility Stigma Coping Strategies

Infertility coping strategies are an individual's cognitive and behavioural tactics and efforts to modulate internal and external solicitations evaluated as exceeding personal resources in managing the stressful situation of infertility (Mirzaasgari et al., 2022; Péloquin et al., 2024). Schmidt et al. (2005) considered four types of strategies in developing the assessment of coping mechanisms for infertility stigma. These include active-avoidance, active-confrontation, passive-avoidance, and meaning-based coping strategies. Often times, two or more of them are highlighted in the same study. For example, in Ghana, Kyei et al. (2022) seeking the basic coping strategies found confrontational, distancing, self-control, social support, acceptance responsibility, escape avoidance, problem solving and positive reappraisal, and the least used was acceptance responsibility, followed by confrontational and distancing. However, the four types of infertility stigma coping strategies are reviewed hereafter from empirical studies, according to the Schmidt et al.'s (2005) framework.

Active-Avoidance

The active-avoidance behaviour is reported in several studies. Asiimwe et al. (2022) found social withdrawal and gatherings avoiding in their study. Similar findings came out in several other studies such as Bawadi et al. (2024), Canbay et al. (2022), Dierickx (2022), Jiang et al. (2025), Naab et al. (2025), Ofosu-Budu and Häninnen (2021) and Sharma et al. (2024). Some of these studies mentioned in addition, self-isolation, emotional distancing, disclosure avoidance, conversation avoidance, pretending to have children, applying religious rituals, praying and visiting tombs, and activating social support system against stress. Hiding their infertility condition was among the coping strategies found by Taebi et al. (2021). For Jing et al. (2021), the active-avoidance coping strategy could sustain stigma and hinder fertility quality of life, but Buran and Acar (2024) stated that avoidance may be an efficient strategy only in some conditions. Sharing this perspective, González Casas et al. (2025) commented that the adequacy of any coping style is condition-dependent.

Active-Confrontation

Several empirical studies report women choosing to actively confront their infertility issue. Online peer support was found reducing feelings of isolation of women with infertility in the study of O'Connell et al. (2021). It helped them manage their infertility stress, connect, communicate, share, and seek information, developing positive coping. The active confronting strategy in the study of Diallo et al. (2024) expressed as mutual support among peers, self-motivation, active engagement in church and religious

activities. With Adane et al. (2024), active confrontation of infertility reveals as help seeking from traditional herbalists or wizards, conventional medicine and informal foster care. Similarly, the women in Annan-Frey et al.'s (2023) study turned to herbal-based and biomedical-based strategies. Herbalist seeking was also found in Asiimwe et al.'s (2022) study.

Passive-Avoidance

The coping strategies found in Canbay et al. (2022) include self-affirmation techniques like dreaming to be feeling better, enduring, thanksgiving and hoping, believing in the power of nature, crying, and doling out. Asiimwe et al. (2022) found self-blame, hiding emotion, distractions, alcoholism, focus on money making, or obeying the husband; and negative self-concept. Bawadi et al. (2024) found selective disclosure, and Moutzouri et al. (2024) discussed emotional adjustment. Mashaah et al. (2024) found rebellious behaviour, emotional concealment, crying, and alcohol use in their studies. Like others, Smith et al. (2025) specified avoidance mechanisms as denial, disengagement and substance use among others, and reported that such coping strategy may lead to delay in, or inhibit help seeking, and lead to exacerbated psychological distress. Meanwhile, Naab et al. (2025) explored spirituality as coping strategy in their study.

Meaning-Based Coping

Empirical studies report spirituality and religion in the coping assets of women with infertility. Adane et al. (2024) found women's choice as massage with holy books and holy cross, and voluntary service to religious institutions. The strategies found by Asiimwe et al. (2022) included mental strength for self-belief and acceptance; spiritual coping through prayer, BIBLE reading, and hoping; optimism through belief in self, positive thinking, and concentration on work; and acceptance of the situation as the will of God. Religious and faith-based coping were also found in the studies by Akarsu and Beji (2021), Bayoumi et al. (2021), Mashaah et al. (2024), and Sharma et al. (2024).

Spirituality in Coping with Infertility Stigma.

Both spirituality and religion contribute to psychological well-being, comforting and entertaining hope (Sargeant & Yoxall, 2023). Rathore and Kriplani (2023) featured the individual-focus aspect of spirituality in positioning religion at community level as an organized system of beliefs, and setting spirituality subjectively within the individual dealing with personal beliefs. As conceptualized by these authors, spirituality can play a role in coping when the individual is dealing with adverse situation such as infertility-related stigma. This may explain why spirituality as coping

strategy was found positively associated with quality of life (Amjad & Ahmad, 2023). Specifically, the individual finds meaning to life in spiritual beliefs and values, in addition to gaining a sense of connectedness to God, self and environment (Amjad & Ahmad, 2023).

Another reason for spirituality to effect on coping is found in Garszen et al.'s (2021) meta-analysis where they expressed the effect of religion and spirituality on mental health in terms of quality of life, life satisfaction, well-being, and distress. Indeed, the role of spirituality in mental health is well-established (Henderson et al., 2024) and the construct of spirituality can be associated with other variables (Sena et al., 2021). For example, Jing et al. (2021) found stigma as inversely related to fertility quality of life and the active-avoidance mode as the most important coping strategy that mediates stigma and fertility quality of life. In addition, the study showed that the meaning-based coping mode played positively in the relationship between stigma and fertility quality of life. Therefore, prayer or goal shifting could lead to better quality of life and low levels of perceived stigma due to transfer of the infertility pressure, generating a new source of sustenance in spirituality. In this, the protective role of spirituality through prayer in the face of stigma was highlighted.

Foti et al. (2023) found importance of motherhood positively associated with spiritual coping, suggesting that the desire for biological offspring may lead women to turn to, or focus on practices lifting spirituality. With Çalışkan and Özkan (2021) spirituality was found in the coping strategies of women facing multifaceted violence in addition to infertility. Likewise, Akarsu and Beji (2021) found spirituality in the women in the study's coping strategies. The perception of their infertility condition as the will of God pushed them to prayer. Dehghan et al. (2024) acknowledged the potential of religious and spiritual intervention to alleviate the social and psychological stress in women with infertility, then found in their study, prayer and engagement in spiritual rituals as part of the coping strategies against the purposelessness of life and feelings of hopelessness.

This perception of spirituality in the coping repertoire against infertility and related stigma, was also experienced in Mpono et al. (2024) who found prayer and keeping busy as the most used coping strategies. Annan-Frey et al. (2023) found women drawing upon their religious faith to adapt, relying on their devout conviction as a vital source for spiritual support and developing religious practices like fasting and prayers, in believing that God would provide a child for them. From Tusasiirwe et al. (2023), religious practices such as prayer and communal worship provide people with a sense of belonging that sustains hope in the face of adverse circumstances. More, Abekah et al. (2025) investigating traditional and modern approaches to infertility treatment in Ghana, reported spirituality as a

component of good health in the Ghanaian cultural belief system. The treatment practices might include deliverance services, prayer camps, or fasting. From Chamberlain (2022), the traditional rituals could be libation pouring to calm ancestral spirits. Extending belief in spiritual blockages or curses, infertility was sometimes culturally perceived as due to spiritual marriages or covenants that would break only through specific rituals. The centrality of spirituality and religion to life is shown in these processes of healing.

To this point, the women experiencing infertility in the various studies reviewed suggest positive appraisal of spirituality or religion in coping strategies. However, the potential of religion to hinder individuals' coping mechanisms was underlined by Litalien et al. (2022) and Gezinski et al. (2021) in their studies. In addition, there is the issue of positive or negative religious coping. When some women facing infertility feel that their prayers remain unanswered, they can develop hatred towards God, taking their infertility as a curse or a punishment from Him. Wnuk (2024) presents the contrast: while positive religious coping is trusting God through an open bond with Him, negative religious coping is developing an anxious attachment to God, made of fear of Him, fear of abandonment by Him, expectation of punishment from Him, and fear of potential revenge from Him. Of the same opinion is Gheysari et al. (2023) who showed that the negative religious coping makes the women have a negative appraisal of God Whom they consider a punitive force with uncertain ability to answer prayer. Hence, they develop anger towards Him. Wnuk (2024) reported that positive religious coping positively predicted positive affect. In sum, religious coping appears as valuable in the coping asset of the women facing infertility, and negative use may prompt psychological distress.

Method

Study Setting and Ethics

This research was conducted in the County of Zou, Benin Republic between October 2025 and January 2026. The study protocol was reviewed and approved by the National Committee for Health Research Ethics in Benin Republic and by the Post Graduate School and Institutional Scientific and Ethics Review Committee (ISERC) of Pan Africa Christian University, Kenya.

Research Design

This article is the spirituality-focused part of research addressing the influence of spirituality and resilience on managing infertility stigma. It is a correlational study employing a convergent mixed-methods design, that integrates quantitative and qualitative data to achieve comprehensive

understanding (Wasti et al., 2022). Quantitative and qualitative data were collected concurrently, analysed concomitantly, and triangulated (Whitley et al., 2020). Spirituality was designed as independent variable and coping strategies was considered dependent.

Sampling and Participants

The survey sample size of 384 participants was computed with Cochran's formula considering 95% confidence level, 50% expected prevalence, and 5% margin of error (Ahmed, 2024). From a three-stage multiple sampling procedure, the Zou County and evangelical church were first selected by random and purposive sampling. Following, potential participants aligned with inclusion criteria (women married at least two years, struggling with infertility, and attending church) were randomly selected from list provided by church management followed by snowball sampling within congregations. Next, specific women and leaders were purposively selected for qualitative supplement. Finally, the mixed-methods study involved 429 participants comprising 384 for the survey (including 8 women age 51 to 60 in a focus group after survey), 15 church leaders in two focus groups, 14 pastors, and 16 women's fellowship leaders who gave individual interviews.

Instruments

Demographic questionnaire

The demographics of women with infertility participating to the study were collected with a researcher-designed questionnaire. The collected data related to age of the woman, age of husband, their age at marriage, duration of marriage, type of marital relationship (monogamous, polygamous), number of children from other unions where it applies, socioeconomic conditions, and infertility treatment status.

Quantitative data

Standardized instruments were used for the quantitative data collection, including the Assessment of Spirituality and Religious Sentiments (ASPIRES) and the COMPI Coping Strategy Scale (CSS). Permission for use and licensing were obtained from developers of these instruments.

ASPIRES

Developed by Piedmont (2010), ASPIRES is a 35-item scale integrating two domains namely, the Spiritual Transcendence (ST) and the Religious Sentiments (RS). The ST scale contains 23 items evaluated on a 5-point Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). It measures three correlated facets namely, the Prayer Fulfilment

(PF, 10 items), the Universality (UN, 7 items), and the Connectedness (CN, 6 items). The PF reports the ability to enable oneself to feel a positive connection to some greater reality. The UN says the belief of the individual in a larger meaning and purpose to life. The CN gives the individual's feelings of belonging and responsibility to a broader human reality above all and generations. The Cronbach alphas were .95, .86, .60, and .93 respectively for PF, UN, CN, and ST.

The RS domain comprises two scales, the Religious Involvement (RI) and the Religious Crisis (RC). The RI is an 8-item scale that assesses the scope of the individual's involvement in the practicing of rituals and activities in their faith community. The RC, a 4-item scale, assesses the extent to which an individual feels distressed in their relationship with God. A 5-point Likert-type scale guides answers that range from 1 (strongly disagree) to 5 (strongly agree). The Cronbach alpha was .89 for RI and .78 for RC scores. Age- and gender-specific norms enabled interpretive standards (Piedmont, 2020). The ASPIRES demonstrated strong psychometric properties including internal consistency, test-retest reliability, and incremental validity over personality measures (Piedmont, 2010).

COMPI Coping Strategy Scale (CSS)

The COMPI CSS was developed by Schmidt et al. (2005) and Schmidt (2006). It is a four-dimension and 19-item instrument using a four-point Likert scale expressed by 1 (not used), 2 (used somewhat), 3 (used quite a bit), and 4 (used a great deal) for responses. The four dimensions are: Active-Avoidance (4 items), Active-Confronting (7 items), Passive-Avoidance (3 items), and Meaning-Based Coping (5 items). The four subscales were initially developed as part of a set of variables in a wider research design on the topic of infertility. The aim was to assess the frequency of use of the subscales under a given fertility-related pressure. The CSS shows cross-cultural validity. For example, Cronbach's alphas range from 0.62 to 0.70 across subscales in a sample of Turkish infertile couples (Yilmaz & Oskay, 2016).

Qualitative protocols

Semi-structured interview and focus group guides explored infertility perceptions and stigma experiences, coping strategies, and spiritual practices and beliefs. Guides were developed from quantitative variable conceptualizations and validated through review by experts in the fields of public health, psychology, theology, sociology, and social statistics.

Procedures

Six counselling psychology students proficient in *Fon* (the primary local language) were recruited as trained research assistants. Data was collected with interviewer-administered methods from participants who signed the informed consent. Due to limitations in literacy, the survey questionnaire was administered orally. Data collection instruments were translated from French or English into *Fon* and back-translated into French for achieving consistency. The women's focus group with participants aged 51 to 60 was intended to capture longitudinal perspectives of infertility stigma experiences. Church leaders' focus groups explored institutional responses to infertility. Pastoral interviews examined theological frameworks and counselling approaches. Interviews with women's fellowship leaders were designed to assess general community perceptions.

Data Analysis

Quantitative data were analysed using SPSS 25.0. Descriptive statistics were used for demographics and the scales. ASPIRES scores were computed for each subscale and interpreted using the normative age-ranges (18–25, 26–45, 46–60; Piedmont, 2020). CSS scores were calculated for the four subscales. Internal consistency was assessed with Cronbach's alpha. Simple linear regression evaluated Spiritual Transcendence as a predictor of Coping Strategies. Pearson correlations examined relationships between spirituality dimensions and specific coping approaches. Assumptions were verified through residual analysis. For the qualitative data, verbatim transcripts were prepared from audio recordings and field notes. For analysis, Braun and Clarke's (2006) six-phase thematic analysis framework (Ahmed et al., 2025) was used with initial coding followed by theme generation, review, definition, and naming. In addition, in a matched mixed methods approach, participants' responses to the open-ended questions in the survey were first read, sorted, coded, and synthesized before being summarized with frequencies and percentages. This permitted to quantify the qualitative data and improve interpretation (Halevi-Hochwald et al., 2023). Joint displays comparing quantitative patterns with qualitative themes and the construction of narratives presenting interconnected findings helped to achieve integration.

Results

Participant Characteristics

Survey participants ($N = 384$) ranged in age from 18 to 60 years ($M = 31.95$, $SD = 8.54$). Most (67.71%) were age 18 to 34, reflecting the high-fertility window. Other women were aged 35 to 50 at 29.69%, and 51 to 60 years at 2.60%. A majority of 96.61% married between ages 18 and 34 and

the rest 3.39% between 35 and 45 years. Marriage duration was predominantly 2 to 5 years (52.08%), and 6 to 10 years at 21.36%; 11 to 20 years at 19.53%; 21 to 30 years for 6.25%; and 31 to 45 years for 1.04%. Polygamous unions represented 26.30% of women. The highest level of formal education was primary for 14.06%; secondary for 9.90%; and tertiary for 1.04%; while 26.04% were uneducated and 48.96% had a non-formal small-scale professional training but limited formal schooling. The majority (82.55%) were self-employed and 3.91% were civil servant. Women identified as housewives at 13.54%. Seeking treatment for infertility was common, with 55% having attempted conception for 1 to 5 years and 20% utilizing a combination of spiritual, medical, and herbal approaches.

Spirituality Profiles

The characteristics of the 384 surveyed women on their spirituality are reported in this section. Table 1 displays the descriptive statistics of ASPIRES.

Table 1: Descriptive Statistics of ASPIRES

ASPIRES Scales	Study sample (<i>N</i> = 384)			Developer's Normative Data (<i>N</i> = 2,989)		
	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
Prayer Fulfilment	39.89	7.42	.78	34.43	10.17	.95
Universality	25.59	4.05	.75	24.39	5.87	.86
Connectedness	16.67	3.21	.63	21.09	4.04	.60
ST Total	82.15	10.16	.90	79.35	17.17	.93
Religious Involvement	35.22	4.12	.42	.01	6.2	.89
Religious Crisis	16.91	3.09	.71	7.23	2.9	.78

Note. These are ASPIRES raw scores. Source of normative data: Piedmont (2020).

As shown in table 1, for the measures of central tendency, ASPIRES scored high on Spiritual Transcendence ($M = 82.15$, $SD = 10.16$) with the subscale Prayer Fulfilment highest ($M = 39.89$, $SD = 7.42$), followed by Universality ($M = 25.59$, $SD = 4.05$) and Connectedness ($M = 16.67$, $SD = 3.21$). Religious Sentiments showed notably high levels of Religious Involvement ($M = 35.22$, $SD = 4.12$) and Religious Crisis ($M = 16.91$, $SD = 3.09$). Internal consistency varied from unacceptable for Religious Involvement ($\alpha = 0.42$) to excellent with Spiritual Transcendence ($\alpha = 0.90$). The findings in this study divert from the normative on the Religious Sentiments scales. The nature of the sample (women struggling with the existential crisis of infertility) might explain the pattern. Table 2 introduces normative age ranges and value ranges for analysis of the scales.

Table 2: Age-Stratified Mean Scores of ASPIRES Scales

Age group (years)	ASPIRES Scales											
	Mean scores and normative scores ranges											
	ST		PF		UN		CT		RI		RC	
18-25	81.53	74-88	39.93	31-39	25.17	22-27	16.43	20-24	34.92	22-31	16.66	6-9
26-45	82.46	64-87	40.00	26-39	25.85	19-28	16.61	17-22	35.24	27-38	17.04	5-8
46-60	81.93	68-91	38.83	28-41	25.00	21-29	18.10	18-23	36.20	32-41	16.80	5-8

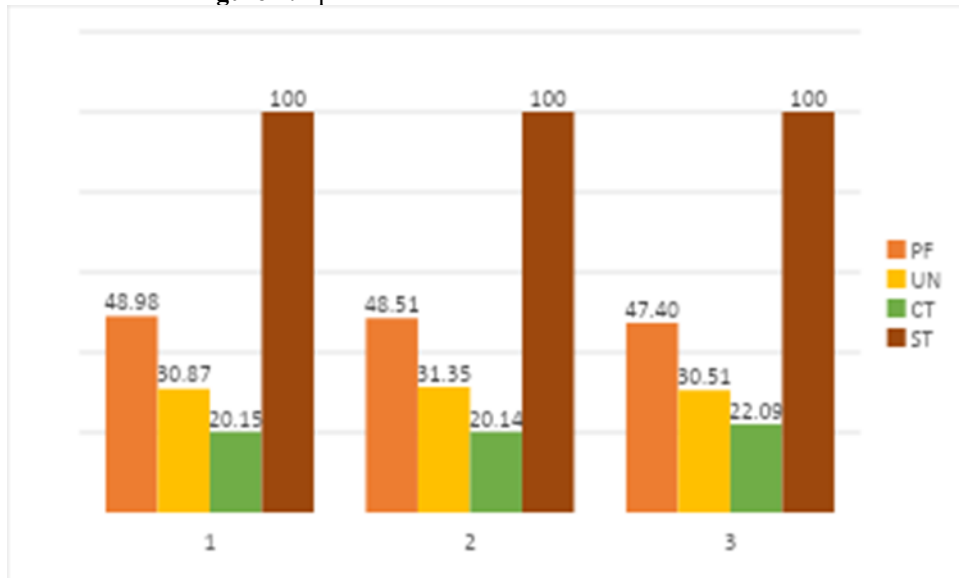
Note. Average scores by age group in this study put in parallel with normative mean score ranges. Source of normative values' ranges: Piedmont (2020).

As shown in Table 2, analysis revealed constant patterns across groups: Prayer Fulfilment scored the highest (38.83–40.00), while Connectedness displayed lowest scores (16.43–18.10). All age groups scored within normative ranges for Spiritual Transcendence, indicating sustained spiritual engagement despite infertility duration. However, Religious Crisis scores exceeded norms in all groups (expected: 6–9; observed: 16.66–17.04), suggesting persistent spiritual struggle, as found in qualitative data from a 28-year-old participant:

“I am discouraged by life. Many judge me, I judge my God since it is He who allowed all of this”.

They were struggling to continue serving a God who was not answering their prayers. Piedmont (2020) commenting such high values of the Religious Crisis scale, states of high levels of emotional distress, bitterness, dissatisfaction, and suspicion about others' motivations, as characterizing such individuals. Accordingly, it stems from all interviews and pastors' focus groups that women with infertility developed bitterness over time, and at gatherings, suspected everyone of gossiping about them.

For a focus on the Spiritual Transcendence scale, Figure 1 displays the score values in percentage.

Figure 1: Spiritual Transcendence Scale and Subscales

Note. Mean scores of Spiritual Transcendence scales in percentage per age range.
Source: Researcher, 2026.

From figure 1, the constancy of patterns across groups is evident. Prayer Fulfilment dominated (47.40%–48.98%), while Connectedness remained lowest (20.15%–22.09%). The qualitative data shed light on these trends. Prayer appeared as the predominant expression of spirituality: 50% cited prayer for infertility-specific concerns, 65.89% identified prayer maintaining resilience, and 29.17% listed prayer as primary coping strategy. One participant (age 56) summarized:

“I leave everything to God.”

However, scriptural engagement was minimal (3.65% for infertility-related study), suggesting a prayer-centred rather than Scripture-centred spirituality.

The Universality subscale in this study scoring ($M = 25.59$, $SD = 4.05$) above the normative value ($M = 24.39$; $SD = 5.87$) indicated belief in transcendent community despite experienced isolation. This tension between high spiritual connection and social disconnection needed qualitative validation. The belief in a shared inner vision that should supplant external differences made all women in the survey resent stigmatization in the Church supposed to be a place of shared beliefs. A 25-year-old participant commented:

“I thought the Church would be a safe place; instead, it is at Church that there is the most stigma”.

Women advocated community education (92.71%), empathy (94.53%), and brotherly love (38.28%) as antidotes to church-based stigma. Despite the personal nature of spirituality, the church community must promote social connection, as encouragement for the woman facing infertility, and antidote to isolation. Unfortunately, higher stigma in the church exacerbates isolation. The failure of church community justifies the women advocating for community education.

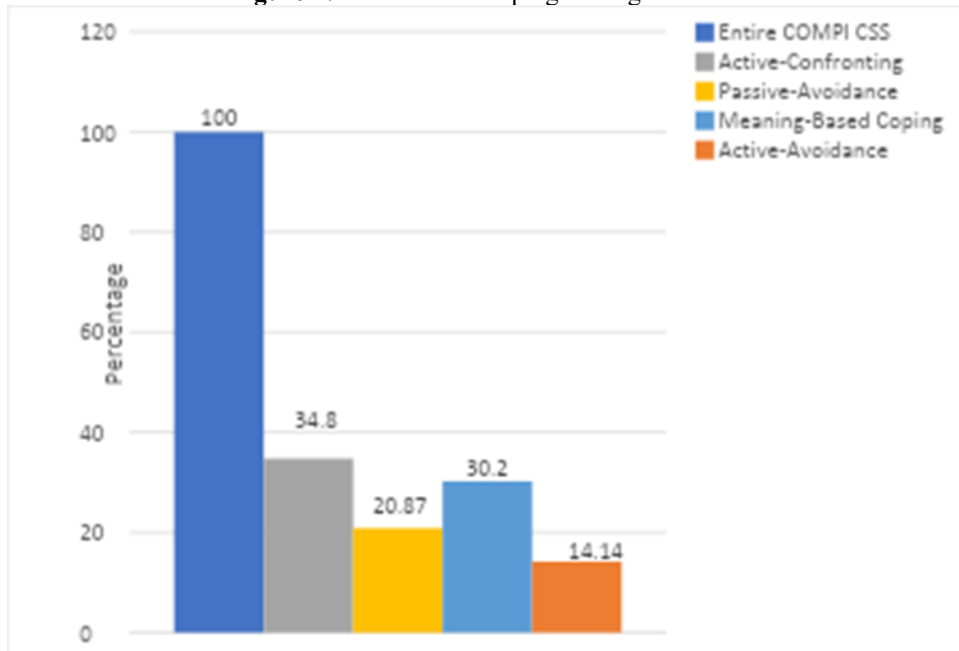
Connectedness scores below the norms for younger groups (18–45 years) reflected identity fusion with infertility. Participants described suffering continuous mockery, including the humiliating epithet “sieve uterus” eroding self-worth. Older women (46–60 years) reported higher levels of connectedness, with one of them (age 50) explaining:

“I no longer do anything in the face of stigma, because I have let go.”

This developmental trajectory of initial identity diffusion followed by subsequent differentiation emerged as a central qualitative theme.

Infertility Stigma Coping Strategies

The measures of the central tendency of the Coping Strategies Scales were: Active-Confronting ($M = 18.14$, $SD = 5.07$), Meaning-Based Coping ($M = 15.74$, $SD = 3.15$), Passive-Avoidance ($M = 10.88$, $SD = 1.89$), and Active-Avoidance ($M = 7.37$, $SD = 3.11$). Internal consistency was strong: CSS total, $\alpha = 0.78$; Active-Avoidance, $\alpha = 0.85$; Active-Confronting, $\alpha = 0.84$; Passive-Avoidance, $\alpha = 0.93$; Meaning-Based, $\alpha = 0.82$. The baseline values were: Active-avoidance coping ($M = 6.98$, $SD = 2.27$, $\alpha = 0.68$), active-confronting coping ($M = 15.67$, $SD = 4.09$, $\alpha = 0.76$), passive-avoidance coping ($M = 9.13$, $SD = 1.97$, $\alpha = 0.46$), and meaning-based coping ($M = 11.20$, $SD = 2.99$, $\alpha = 0.59$). The values in this study share the trends of the baseline values. The active-avoidance strategy was the least scoring, and the active-confronting the most. The second-best strategy used was the meaning-based, followed by the passive-avoidance. For a better focus, the subscales are visualized in figure 2 in terms of percentages of the CSS.

Figure 2: The COMPI Coping Strategies Scales

Note. The COMPI CSS subscales' mean values.
Source: Researcher, 2026.

The pattern is better visualized in Figure 2 depicting the dominance of the active-confronting and the meaning-based coping approaches. The qualitative data supported these results. All women in the survey sought infertility treatment, and 55.11% employed all types of treatment. This supports the high value of active-confronting dimension of the scale. The Church been the study setting, and the prayer-centred spirituality found in the previous section are supportive to the meaning-based coping scoring second. In the Church, the inner self of the woman is nurtured with the values of the belief system, thereby growing her spirituality and shaping her perception. A 53-year-old woman mentioned:

“I often say that God’s timing is the best.”

Another woman, age 26 said:

“I often leave places where I feel depressed”.

As shown by the quantitative results, such active-avoidance examples were few in the survey data. Nonetheless, additional avoidance strategies emerged from female leaders: avoiding new mothers, limiting outings with husbands, restricting social exposure to unfamiliar areas, and maintaining small, selective friendships.

Passive-avoidance expressed as 9.11% reporting spiritual practices exclusively, while 16.67% combined spiritual with herbal approaches due to economic constraints. These findings align with previous research. Odek et al. (2021) in Kenya found that due to socioeconomic factors, coping mode choices were motivated by traditional and religious beliefs and spiritual intervention was sought as source of support and coping strategy as well as potential solution to infertility. Consequently, 20% of participants resorted to prayers.

In the survey, women named specific coping strategies as praying (29.17%), crying (22.92%), self-comfort (15.10%), indifference (9.11%), calm (8.07%), rumination (5.99%), arguments (3.64%), self-isolation (3.13%), and focus on work (2.87%). One woman named several strategies. Also, they moved from one strategy to another. A 38-year-old woman said:

“I have been desiring to conceive for 17 years. At first, I used to respond to provocations, but now I no longer react to hassles; on the contrary, I pray for those people”.

Senior women in focus group concurred with these and added that self-isolation may come into play even when the women are physically present at a gathering as they avoid giving their opinion and minimize interpersonal interactions. These findings are similar to those in previous studies such as Bawadi et al. (2024), Jiang et al. (2025), and Naab et al. (2025).

All Church leaders and senior women in focus group stated that women’s coping strategies depended on the stage in their experience of infertility. One male study participant explained:

“At an early stage, they feel shame and despair and hide, self-isolate, and withdraw from some Church activities. They avoid any gathering involving children or set about them. They cry a lot and show sadness. Some react vividly to stigmatization before crying at private. At a middle stage, they show more indifference as they start getting used to their condition and the whole surrounding situation. At a later stage, most of them overcome their shame and mingle with the community. Maybe they realize that it is the age of being grandmother and they let go of everything. They try to be faithful observant to the Word of God. They probably tell themselves that it was God’s will for them to go through such condition. They accept themselves, accept the situation, and hope, and some open up to any eventual act of compassion from brothers and sisters in the Church”.

This comment echoes Fubara-Manuel and Fretheim's (2023) view that Christian spirituality involves the expressions, values, and reflections on the daily lived experience of Christian faith. And Villegas (2023) puts that Christian spirituality is a religious spirituality where the Christian tradition embraces the values and beliefs that turn to meaning and guide practice to wholeness and transcendence.

This statement from focus group suggests a three-stage coping trajectory:

1. An early stage characterized by shame, despair, and active-avoidance. Women hid their condition, withdraw from child-centred gatherings, and show observable sadness, and optionally, aggressive reaction to stigmatization before private emotional collapse.
2. A middle stage marked by progressive indifference and adaptation. Women reported "getting used to" their condition, with reducing emotional reactivity to provocation. A 38-year-old explained her evolution:
 "At first, I used to respond, but now I no longer react to hassles; on the contrary, I pray for those people."
3. A late stage that featured meaning-based acceptance and reintegration. Women "let go" of conception goals, embrace grandmother roles, and reopen themselves to community. They interpret infertility as divine will.

Church leaders confirmed this progression, noting that over time, women relax and open up to relationships.

Relationship Between Spirituality and Coping

From regression analysis, Spiritual Transcendence significantly predicted Coping Strategies, ($\beta = 0.343$, $p < .000$) accounting for 20.3% of variance in coping strategies. The 20.3% variance explained suggests that spirituality is one component of a multifaceted coping repertoire. From the qualitative data, environment and contextual factors influencing coping strategy selection include poverty, social support, cultural dynamics, and personality factors. However, the reliance on prayer, omnipresent across all infertility stages and coping strategies, suggests that spirituality functioned as a coping substrate rather than as a discrete strategy.

Pearson correlations revealed Spiritual Transcendence positively correlated with Active-Confronting ($r = 0.51$, $p < .001$), Passive-Avoidance ($r = 0.40$, $p < .001$), and Meaning-Based Coping ($r = 0.22$, $p < .01$), but negatively correlated with Active-Avoidance ($r = -0.16$, $p = .002$). The relationships were moderate with Active-Confronting, weak with Passive-Avoidance and Meaning-Based Coping, and negligible with Active-Avoidance.

From the qualitative data, the negative correlation with Active-Avoidance reflected that spiritually engaged women remained present in the church despite discomfort, using prayer to endure rather than escape. The strong positive correlation with Active-Confronting aligned with prayer, as women engaged in active problem-solving, confronted their infertility through spiritual supplication. The moderate correlation with Passive-Avoidance suggests that spirituality enabled endurance (“waiting on God” as said a woman) without active resistance. The weaker correlation with Meaning-Based Coping indicates that while some achieved acceptance, many maintained hope for conception, limiting existential reframing.

Discussion

The major findings in this study include: spirituality / prayer as more a coping resource than a distinct strategy, a prayer-centred spirituality, and a three-stage coping trajectory.

Prayer More a Coping Substrate than a Discrete Strategy

Spirituality significantly predicts coping strategy utilization but explains relatively little variance. This seems to place spirituality within a coping repertoire, alongside many other strategies. This finding aligns with previous research (see Dehghan et al., 2024 for example). However, from qualitative data, prayer is the spontaneous spiritual practice of women, suggesting that whatever the strategy in use, prayer is always present in addition. Consequently, prayer functions as substrate in any act of coping. Thus, spirituality appears as coping resource. The modest amount of explained variance found in the analysis suggests that factors influencing coping strategy selection namely, poverty limiting access to treatment, social support hindered by infertility stigma, religious and cultural dynamics (polygamy, lineage pressure), and personality factors were not captured by the linear mixed model applied. A context-specific model will effectively integrate structural factors and cultural dynamics with spirituality for better outcome.

The Three-Stage Coping Trajectory

As an existential crisis, infertility generates trauma. It is experienced with grief. The three-stage coping trajectory, from avoidance to confrontation to acceptance, recalls the grief stages in Kübler-Ross (1969), but with culturally specific expressions. Early shame reflects the “spoiled identity” described by Goffman (1963) within collectivist contexts where individual worth derives from social role fulfilment. Middle-stage indifference signifies emotional regulation through culturally-shaped feminine endurance. Late-stage meaning-making uses theological resources

(such as God's timing or God's will) to reconstruct identity beyond biological reproduction.

Clinical and Pastoral Implications

The results of this study can inform interventions at multiple levels. For mental health practitioners, the high scores of ASPIRES on Religious Crisis scale suggest the need for routine screening for spiritual struggle among women with infertility, whatever their religious or spiritual engagement.

The co-occurrence of spiritual engagement and religious crisis require nuanced assessment beyond simple religiosity measures. Cognitive-behavioural family therapy interventions might address maladaptive cognitions such as "God is punishing me", while preserving adaptive spiritual and religious practices.

For church-based counsellors, the qualitative data reveal the dual role of religious communities as both stressor and resource. The phenomenon of feeling stigmatized in church calls for institutional interventions: Education challenging pronatalist theologies, support groups normalizing infertility, and pastoral training in reproductive health sensitivity.

The three-stage coping model suggests stage-matched interventions: early-stage crisis intervention, mid-stage support groups, and late-stage meaning-centred counselling.

The prayer-centred spirituality profile indicates that interventions engaging women's existing prayer practices such as prayer journaling, contemplative prayer, and intercessory communities, may prove more acceptable than cognitive or behavioural approaches. Meanwhile, the low level of scriptural engagement suggests opportunities for bibliotherapy using infertility narratives (Hannah, Sarah, and others) to normalize struggle and model faithful endurance.

Limitations

Limitations include the cross-sectional design preventing causal inference; the relatively low level of reliability exhibited by the Religious Sentiments subscales scores suggesting cultural measurement challenges; and the evangelical-specific sample, limiting generalizability to other religious traditions. In addition, the 20.3% variance explained suggest actions of non-measured factors such as marital quality, economic resources, medical prognosis.

Future research could employ longitudinal designs tracking coping evolution, refining the trajectory with age features; incorporate dyadic analysis of couple spiritual dynamics, and examine male partners' stigma experiences. Comparative studies across Christian denominations, Islamic

communities, and traditional religious practitioners would illuminate tradition-specific coping resources.

Conclusion

Spirituality is found a substrate for coping strategies in this study. The prayer-dominated spirituality is an opportunity for Mental health care for integrating spiritual resources while challenging stigma-promoting beliefs. In addition, the three-stage coping trajectory from shame through endurance to acceptance, mediated by spiritual practices, suggests opportunities for stage-appropriate support. The experience of church stigma has to be addressed at structural level by implementing theological ideals.

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References:

1. Abdallah, M., Dawood, A. S., Amer, R., Baklola, M., Elkalla, I. H. R. & Elbohoty, S. B. (2024). Psychiatric disorders among females with prolonged infertility with or without in vitro fertilization/intracytoplasmic sperm injection failure: A cross-sectional study. *Egyptian Journal of Neurology, Psychiatry and Neurosurgery*, 60(83). <https://doi.org/10.1186/s41983-024-00858-0>
2. Abekah, I. A., Abraham, W. K., Fynn, Y. G., Gyan, P., Adeyiga, M., M. & Ankrah, P. P. (2025). Traditional and modern approaches to infertility treatment: A case study in Tamale Teaching Hospital. *ARC Journal of Public Health and Community Medicine*, 10(2), 22-31. <https://doi.org/10.20431/2456-0596.1002004>
3. Adane, T. B., Berhanu, K. Z. & Sewagegn, A. A. (2024). Ethiopian women experiencing infertility: Sociocultural challenges and coping strategies. *Cogent Social Sciences*, 10(1), 2324973. <https://doi.org/10.1080/23311886.2024.2324973>
4. Ahmed, S. K. (2024). How to choose a sampling technique and determine sample size for research: A simplified guide for

- researchers. *Oral Oncology Reports*, 12, 100662. <https://doi.org/10.1016/j.oor.2024.100662>
5. Akarsu, R. H. & Beji, N. K. (2021). Spiritual and religious issues of stigmatization women with infertility: A qualitative study. *Journal of Religion and Health*, 60(1), 256-267. <https://doi.org/10.1007/s10943-019-00884-w>
 6. Amjad, A. & Ahmad, K. (2023). Spiritual coping and quality of life in infertile couples: Evidence from a fertility center in Lahore, Pakistan. *Research Journal for Societal Issues*, 5(1), 241-254. <http://dx.doi.org/10.56976/rjsi.v5i1.82>
 7. Annan-Frey, L., Boateng, E. A., Lomotey, A., Lartey, C. & Dzomeku. (2023). Lived experiences and coping strategies of persons seeking infertility treatment in the Kumasi metropolis: A descriptive phenomenological study. *BMC Women's Health*, 23, 74. <https://doi.org/10.1186/s12905>
 8. Archetti, C. (2024). Infertility as trauma: Understanding the lived experience of involuntary childlessness. *Culture, Medicine, and Psychiatry*, 48, 940-960. <https://doi.org/10.1007/s11013-024-09871-7>
 9. Assaysh-Öberg, S., Borneskog, C. & Ternström, E. (2023). Women's experience of infertility & treatment – A silent grief and failed care and support. *Sexual & Reproductive Healthcare*, 37, 100879. <https://doi.org/10.1016/j.srhc.2023.100879>
 10. Asiimwe, S., Osingada, C. P., Mbalinda, S. N., Musingo, M., Ayebare, E., Namutebi, M. & Muwanguzi, P. A. (2022). Women's experiences of living with involuntary childlessness in Uganda: A qualitative phenomenological study. *BMC Women's Health*, 22, 532. <https://doi.org/10.1186/s12905-022-02087-0>
 11. Bawadi, H., Al-Hamdan, Z. M., Clark, C. J., Hall-Clifford, R., Hamadneh, J. M. & Al-Sharu, E. E. (2024). Infertile Jordanian women's self-perception about societal violence: An interpretative phenomenological study. *International Journal of Women's Health*, 16, 593-603. <https://doi.org/10.2147/IJWH.S451950>
 12. Bayefsky, M. J. & Caplan, A. (2024, August 08). Treating infertility as a missing capability, not a disease: A capability approach. *Journal of Medical Ethics*. <https://doi.org/10.1136/jme-2024-109877>
 13. Bayoumi, R. R., Koert, E., Boivin, J., Viswanath, K. & McConnell, M. (2021). Quality of life of Sudanese patients attending a fertility clinic: A mixed method study. *Health Psychology and Behavioural Medicine*, 9(1), 1006-1030. <https://doi.org/10.1080/21642850.2021.2007773>
 14. Bornstein, M., Huber-Krum, S., Norris, A. H. & Gipson, J. D. (2023). Infertility and perceived chance of conception among men in

- Malawi. *Human Fertility*, 26(3), 504-511.
<https://doi.org/10.1080/14647273.2023.2190042>
15. Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
<https://doi.org/10.1191/1478088706qp063oa>
16. Brigance, C. A. & Brigance, M. L. (2023). A qualitative study of a couple experiencing reproductive trauma: An attachment perspective through a duo ethnography. *Journal of Couple & Relationship Therapy*, 22(2), 105-129.
<https://doi.org/10.1080/15332691.2022.2142716>
17. Buran, G. & Toptaş Acar, B. (2024). The effect of social and emotional capacities on coping strategies and stress in infertile individuals. *Current Psychology*, 43, 29984-29994
<https://doi.org/10.1007/s12144-024-06504-5>
18. Çalışkan, A. & Özkan, F. S. (2021). Marital violence against infertile women and their coping strategies. *Journal of Psychiatric Nursing*, 12(4), 297-306. <https://dx.doi.org/10.14744/phd.2021.46503>
19. Canbay, F. C., Çitil, E. T., Şap, T. S. C. & Şap, O. (2022). Identifying experiences and hopelessness levels of women receiving infertility treatment: A mixed method study. *The American Journal of Family Therapy*, 50(2), 205-226.
<https://doi.org/10.1080/01926187.2021.1905570>
20. Chamberlain, A. M. (2022). *The spiritual identity of women coping with infertility in a religion stressing fertility* (Publication No. 29999797) [Doctoral dissertation, Fielding Graduate University]. ProQuest Dissertations & Theses Global. <https://search.proquest.com/openview/0debd6c8a8c828c33fcd9be3ccdf776f/1?pq-origsite=gscholar&cbl=18750&diss=y>
21. Cox, C. M., Thoma, M. E., Tchangalova, N., Mburu, G., Bornstein, M. J., Johnson, C. L. & Kiarie, J. (2022). Infertility prevalence and the methods of estimation from 1990 to 2021: A systematic review and meta-analysis. *Human Reproduction Open*.
<https://doi.org/10.1093/hropen/hoac051>
22. Dehghan, M., Khodabakhshi-Koolae, A., Heidari, H. & Najdi, N. (2024). Improving daily spiritual experiences and hope among infertile women: The impact of spiritually integrated psychotherapy. *Journal of Research Development in Nursing and Midwifery*, 21(1), 34-37
https://nmj.goums.ac.ir/browse.php?a_id=1562&sid=1&slc_lang=en&ftxt=0
23. Diallo, A. A., Anku, P. J. & Darkoa Oduro, R. A. (2024). Exploring the psycho-social burden of infertility: Perspectives of infertile

- couples in Cape Coast, Ghana. *PLoS One*, *19*(1), e0297428. <https://doi.org/10.1371/journal.pone.0297428>
24. Dierickx, S. (2022). With the kanyaleng and the help of God, you don't feel ashamed: Women experiencing infertility in Casamance, Senegal. *Culture, Health & Sexuality*, *24*(2), 268-283. <https://doi.org/10.1080/13691058.2020.1833366>
25. Dolcos, F., Hohl, K., Hu, Y., & Dolcos, S. (2021). Religiosity and resilience: Cognitive reappraisal and coping self-efficacy mediate the link between religious coping and well-being. *Journal of Religion and Health*, *60*(4), 2892-2905. <https://doi.org/10.1007/s10943-020-01160-y>
26. Foti, F. L., Karner-Hutuleac, A. & Maftai, A. (2023). The value of motherhood and psychological distress among infertile women: The mediating role of coping strategies. *Frontiers in Public Health*, *11*, 1024438. <https://doi.org/10.3389/fpubh.2023.1024438>
27. Fubara-Manuel, J. I. & Fretheim, S. (2023). Orality, gender, and West African Christian spirituality: Exploring women's voices. *Religion Compass*, *17*(1), e12453. <https://doi.org/10.1111/rec3.12453>
28. Garssen, B., Visser, A. & Pool, G. (2021). Does spirituality or religion positively affect mental health? Meta-analysis of longitudinal studies. *The International Journal for the Psychology of Religion*, *31*(1), 4-20. <https://doi.org/10.1080/10508619.2020.1729570>
29. Gerrits, T., Kroes, H., Russell, S. & van Rooij, F. (2023). Breaking the silence around infertility: A scoping review of interventions addressing infertility-related gendered stigmatisation in low- and middle-income countries. *Sexual and Reproductive Health Matters*, *31*(1). <https://doi.org/10.1080/26410397.2022.2134629>
30. Gezinski, L. B., Carlsen, B. & Hawkins, C. (2021). Motherhood and assisted reproduction in a religious context: Genes, stigma and supports in Utah, United States. *Health and Social Care in Community*, *29*(1), 1738-1746. <https://doi.org/10.1111/hsc.13279>
31. Gheysari, A., Farahaninia, M., Hasanpoor-Azghady, S. B. (2023). Religious coping and health-promoting life style among Iranian infertile women. *Journal of Client-Centered Nursing Care*, *9*(4), 255-266. <https://doi.org/10.32598/JCCNC.9.4.159.1>
32. González Casas, D., Dorado Barbe, A. I. & Gálvez Nieto, J. L. (2025). Profiles of coping strategies in university students in relation to personal and academic variables. *Educación XXI*, *28*(1), 103-130. <https://doi.org/10.5944/educxx1.39618>
33. Halevi-Hochwald, I., Green, G., Sela, Y., Radomyslsky, Z., Nissanholtz-Gannot, R. & Hochwald, O. (2023). Converting qualitative data into quantitative values using a matched mixed-

- methods design: A new methodological approach. *Journal of Advanced Nursing*, 79, 4398–4410. <https://doi.org/10.1111/jan.15649>
34. Henderson, R. R., McCarty, D. L., Currier, J. M., Stefurak, J. T. R., Parker, S. M. & Lambert, A. G. (2024). Is spirituality a verb? How Christian A. A. members conceptualize spirituality. *Journal of Spirituality in Mental Health*, 27(4), 582–604. <https://doi.org/10.1080/19349637.2024.2441275>
35. Jiang, L., Xiao, L. & Zhong, Y. (2025). Stigma experience of female infertility patients in China: A phenomenological study. *African Journal of Reproductive Health*, 29 (1), 38-45. <https://doi.org/10.29063/ajrh2025/v29i1.4>
36. Jing, X., Gu, W., Zhang, L., Miao, R., Xu, X., Wang, M., Ramachandran, H. J. & Wang, W. (2021). Coping strategies mediate the association between stigma and fertility quality of life in infertile women undergoing in vitro fertilization-embryo transfer. *BMC Women's Health*, 21(1), 386. <https://doi.org/10.1186/s12905-021-01525-9>
37. Kübler-Ross, E. (1969). *On death and dying*. Macmillan.
38. Kuug, A. K., James, S. & Sihaam, J-B. (2023). Exploring the cultural perspectives and implications of infertility among couples in the Talensi and Nabdam Districts of the upper east region of Ghana. *Contraception and Reproductive Medicine*, 8(1), 28. <https://doi.org/10.1186%2Fs40834-023-00225-z>
39. Kyei, J. M., Manu, A., Dwomoh, D., Kotoh, A. M., Agyabeng, K. & Ankomah, A. (2022). Ways of coping among women with infertility undergoing assisted reproductive technologies in Ghana. *Pan African Medical Journal*, 41(1). <https://doi.org/10.11604/pamj.2022.41.29.31319>
40. Litalien, M., Atari, D. O. & Obasi, I. (2022). The influence of religiosity and spirituality on health in Canada: A systematic literature review. *Journal of Religion and Health*, 61(1), 373-414. <https://doi.org/10.1007/s10943-020-01148-8>
41. Mashaah, T., Gomo, E., Maradzika, J. C., Madziyire, M. G. & January, J. (2024). Psychological, sociocultural, and coping experiences of women with infertility using traditional healthcare services in Harare urban, Zimbabwe: A qualitative study. *African Journal of Reproductive Health*, 28(6), 25-38. <https://doi.org/10.29063/arjh2024/v28i6.3>
42. Mirzaasgari, H., Momeni, F., Pourshahbaz, A., Keshavarzi, F. & Hatami, M. (2022). The relationship between coping strategies and infertility self-efficacy with pregnancy outcomes of women undergoing in vitro fertilization: A prospective cohort study.

- International Journal of Reproductive Biomedicine*, 20(7), 539-548.
<https://doi.org/10.18502/ijrm.v20i7.11556>
43. Moutzouri, M., Sarantaki, A., Koulierakis, G. & Gourounti, K. (2024). Coping strategies associated with emotional adjustment during the dyadic experience of infertility and its treatment: A systematic review. *Journal of Mother and Child*, 28(1), 61-69.
<https://doi.org/10.34763/jmotherandchild.20242801.d-24-00013>
44. Mpono, E. P., Kobenge, F. M., Mengne, G. L., Belinga, E., Kasia, J. M. & Egbe, T. O. (2024). The support systems and coping strategies of infertile women attending the out-patient consultation unit of CHRACERH Yaoundé, Cameroon: A cross-sectional study. *Open Journal of Obstetrics and Gynecology*, 14, 869-887.
<https://doi.org/10.4236/ojog.2024.146070>
45. Naab, F., van der Wath, A. E., Kyei, J. M. & Armah, D. (2025, Marsh 31). Spirituality as a coping strategy for infertility: A scoping review. *Journal of Religion & Health*.
<https://doi.org/10.1007/s10943-025-02302-w>
46. O'Connell, S. B. L., Gelgoot, E. N., Grunberg, P. H., Schinazi, J., Da Costa, Dennis, D., C.-L., Rosberger, Z. & Zelkowitz, P. (2021). I felt less alone knowing I could contribute to the forum: Psychological distress and use of an online infertility peer support forum. *Health Psychology and Behavioural Medicine*, 9(1), 128-148.
<https://doi.org/10.1080/21642850.2021.1884556>
47. Odek, A. W., Kwaka, T., Mulinge, M. & Koyi, S. (2021). An assessment of the coping strategies to address infertility among couples in Kisumu County, Kenya. *African Journal of Health Sciences*, 34(3), 384-391.
<https://www.ajol.info/index.php/ajhs/article/view/212325/200237>
48. Ofosu-Budu, D. & Hänninen, V. (2021). Explanations for infertility: The case of women in rural Ghana. *African Journal of Reproductive Health*, 25(4), 142-152. <https://doi.org/10.29063/ajrh2021/v25i4.15>
49. Okantey, G. N. O., Adomako, E. B., Baffour, F. D. & Lim, D. (2021). Sociocultural implications of infertility and challenges in accessing assisted reproductive technology: Experiences of couples from two health facilities in southern Ghana. *Marriage & Family Review*, 57(5), 375-396.
<https://doi.org/10.1080/01494929.2021.1880529>
50. Péloquin, K., Arpin, V., Jacmin-Park, S., Beaulieu, N. & Brassard, A. (2024). A dyadic study of attachment, coping, and quality of life in couples seeking fertility treatment. *Journal of Sex & Marital Therapy*, 50(5), 659-674.
<https://doi.org/10.1080/0092623X.2024.2347422>

51. Piedmont, R. L. (2010). *Assessment of spirituality and religious sentiments scale technical manual* (2nd ed.). Timonium.
52. Piedmont, R. L. (2020). *Assessment of Spirituality and religious sentiments scale technical manual* (3rd ed.). Timonium.
53. Piedmont, R. L., Kennedy, M. C., Sherman, M. F., Sherman, N. C. & Williams, J. E. G. (2008). A psychometric evaluation of the assessment of spirituality and religious sentiments (ASPIRES) scale: Short form. *Research in the Social Scientific Study of Religion*, *19*, 163-181. <https://doi.org/10.1163/ej.9789004166462.i-299.55>
54. Pirutinsky, S., Cherniak, A. D. & Rosmarin, D. H. (2020). COVID-19, Mental Health, and Religious Coping Among American Orthodox Jews. *Journal of Religion & Health*, *59*(5), 2288-2301. <https://doi.org/10.1007/s10943-020-01070-z>
55. Rathore, L. N. & Kriplani, V. (2023). Integrating spirituality into psychotherapy practice in mental health: ethical issues, challenges and possible way out. *International Journal of Health Sciences and Research*, *13*(3), 167-173. <https://doi.org/10.52403/ijhsr.20230316>
56. Sargeant, S. & Yoxall, J. (2023). Psychology and spirituality: Reviewing developments in history, method and practice. *Journal of Religion and Health*, *62*, 1159–1174. <https://doi.org/10.1007/s10943-022-01731-1>
57. Schmidt, L. (2006). Infertility and assisted reproduction in Denmark: Epidemiology and psychosocial consequences. *Danish Medical Bulletin*, *53*(4), 390-417. <https://pubmed.ncbi.nlm.nih.gov/17150146/>
58. Schmidt, L., Christensen, U. & Holstein, B. E. (2005). The social epidemiology of coping with infertility. *Human Reproduction*, *20*(4), 1044-1052. <https://doi.org/10.1093/humrep/deh687>
59. Smith, C. M., Tang, M. Y., Clark, G. & Madgwick, S. (2025). How do coping strategies influence fertility-related information seeking/avoidance? *Human Fertility*, *28*(1), 2488759. <https://doi.org/10.1080/14647273.2025.2488759>
60. Sena, M. A. dB., Damiano, R. F., Lucchetti, G. & Peres, M. F. P. (2021). Defining spirituality in healthcare: A systematic review and conceptual framework. *Frontiers of Psychology*, *12*, 756080. <https://doi.org/10.3389/fpsyg.2021.756080>
61. Sharma, A., Srivastava, R., Patel, R., Saraswathy, K. N., Puri, M., Babu, N. & Mahajan, C. (2024). A qualitative study of women struggling with infertility from Delhi-NCR, India. *Women's Studies International Forum*, *108*, 103018. <https://doi.org/10.1016/j.wsif.2024.103018>
62. Taebi, M., Kariman, N., Montazeri, A. & Majd, H. A. (2021). Infertility stigma: A qualitative study on feelings and experiences of

- infertile women. *International Journal of Fertility and Sterility*, 15(3), 189-196. <https://doi.org/10.22074/ijfs.2021.139093.1039>
63. Tusasiirwe, S., Nabbumba, D. & Kansime, P. (2023). Religion and spirituality in social work in Uganda: Lessons for social work education. *Social Work Education*, 42(2), 202-219. <https://doi.org/10.1080/02615479.2022.2104243>
64. Villegas, D. R. (2023). Mysticism as a dimension of Christian spirituality. *Interpretation: A Journal of BIBLE and Theology*, 77(2), 122-131. <https://uk.sagepub.com/en-gb/journals-permissions>
65. Wnuk, M. (2024). The Mechanisms Underlying religious coping and hopelessness: Role of meaning in life and affectivity. *Pastoral Psychology*. <https://doi.org/10.1007/s11089-024-01181-4>
66. World Health Organization. (2023). *Infertility prevalence estimates, 1990–2021*. WHO Press.
67. Yilmaz, T. & Oskay, U. Y. (2016). The Copenhagen Multi-centre Psychosocial Infertility (COMPI) fertility problem stress and coping strategy scales: A psychometric validation study in Turkish infertile couples. *International Journal of Caring Sciences*, 9(2), 452-462. https://internationaljournalofcaringsciences.org/docs/9_Yilmaz_original_9_2.pdf