

A Systematic Review of the Risk and Protective Factors of Intrinsic and Extrinsic Religiosity in Relation to Adolescent Sexual Behaviour

Olivia Bomester*

Helderberg College of Higher Education, South Africa

Abstract

A systematic review of contemporaneous empirical studies was conducted to identify the risk and protective factors of intrinsic and extrinsic religiosity in adolescents in relation to their sexual behaviour. In addition, a comprehensive review of social science literature was performed using a ten-year period as a parameter (from 2009 to 2019) to capture recent trends. The justification for the systematic review was to report the findings from the analyses of this subsample of studies. This essay explains the article search procedure, followed by an overview and meta-synthesis of reviewed studies. The significance of this article is that it extends the existing knowledge to the area under investigation.

Keywords: Intrinsic religiosity, extrinsic religiosity, adolescents, sexual behaviour, Christian faith-based schools

Introduction

Religiosity is a multifaceted construct that is operationalised and measured in various ways (Amoateng, 2017; DeHaan et al., as cited in Taggart et al., 2018). In its simplest form, religiosity can be explained as the quality or state of being religious (Merriam-Webster Online Dictionary, 2022). However, there is generally a lack of consensus among scholars regarding a common definition of religiosity, with some scholars providing simplistic definitions. In contrast, others describe religiosity more in the amalgamate form.

For the purposes of this scholarly essay, religiosity is defined as the strength of one's religious beliefs or convictions and is made up of two components, which affect Behaviour, namely the intrinsic and extrinsic elements (Lyons & Smith, 2014).

“The current operationalised definition of intrinsic religiosity is the internalised structure of religious belief that provides meaning to an individual, and is independent of institutional affiliation or doctrinal allegiance, while extrinsic

religiosity is the outward or external use of religion to serve social needs” (Donahue, as cited in Lyons, 2014, p. 165). Thus, according to Jaume et al. (2013), individuals with an intrinsic religious orientation view religion as being fundamental to their identity. In other words, religion is regarded as the primary source of motivation in their lives. On the other hand, individuals with an extrinsic religious orientation essentially use their religious practices instrumentally, meaning that they use their religion to achieve personal or social aspirations (Jaume et al., 2013). Carson (2017) explains that intrinsic religiosity is deeply personal, internalised, and provides meaning to a person's life. According to Carson (2017), extrinsic religious orientation is essentially a means to an end—a self-serving way to attain personal security and social status. Thus, it can be argued that an extrinsic belief system is utilitarian.

Therefore, to sum up the essential difference between these two orientations, persons with extrinsic religious orientations participate in religious activities to establish or maintain social networks without unquestionably complying

with their religious beliefs, whereas persons with intrinsic orientations view religion as the driving force in their lives (Batson & Schoenrade, 1991). As these definitions show, the central distinction between these two orientations is related to motivation. According to Allport and Ross (1967), “The extrinsically motivated person uses his religious, while the intrinsically motivated person lives his religion” (p. 434).

A proliferation of literature exists which probes the association between various dimensions of religiosity. Many of these studies have focused on the frequency of religious participation in relation to risky adolescent sexual Behaviour, substance usage, and general risk Behaviours (Barton et al., 2014; Lefkowitz et al., 2004; Nonnemaker et al., 2003). Nevertheless, Taggart et al. (2018) found that research findings on the influence of religiosity on adolescent sexual health Behaviours varied. Contemporary researchers have found that religiosity may protect against or be a risk factor for unsafe sexual practices (Landor et al., 2011; Lefkowitz et al., 2004; Miller & Gur, 2002; Zaleski & Schiaffino, 2000). In this scholarly essay, the researcher systematically reviewed the risk and protective factors of intrinsic and extrinsic religiosity in relation to adolescent sexual Behaviour.

Methods

Selection Criteria and Descriptors

In terms of the inclusion criteria for the systematic review, articles in English reporting empirical research published between 2009 and 2019 and available online were included. The publication year range was sufficiently recent to ensure the exclusion of outdated studies. Additionally, an extensive literature search of published and unpublished studies was performed using the following descriptors: risk factors, protective factors, intrinsic religiosity, extrinsic religiosity, adolescents, sexual Behaviour, and Christian faith-based schools.

Article search procedure

The search process commenced by entering various keywords (i.e., descriptors) into EBSCOhost,

JSTOR, SAGE, Sabinet, PsyINFO, PsyARTICLES, Google Scholar, and WorldCat. The descriptors included risk factors, protective factors, intrinsic religiosity, extrinsic religiosity, adolescents, sexual Behaviour, and Christian faith-based schools. The researcher followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses [PRISMA] four-fold process: identification, screening eligibility, appraisal, and summative review.

In the first step of the PRISMA process, the researcher was required to identify the records through a database and grey literature search. The researcher initially identified records through a grey literature search. Google Scholar yielded 550 records, and WorldCat yielded five records, for a total of 555. Subsequently, she identified 3410 records through a database search, all of which were generated through EBSCOhost. From the record list of 3 965, 61 duplicates were identified. This means that the articles appeared in more than one database. Duplications were found among EBSCOhost, Google Scholar, and WorldCat. After excluding the duplicates, there were 3904 records. A total of 3832 records were considered inappropriate based on the title alone. Therefore, these records were excluded from the review. Thus, the total number of records retained at the end of Step 1 was 3904 after duplicates were removed.

In the screening step, the researcher examined the titles and abstracts of the articles based on the inclusion criteria. After screening the titles and abstracts of the database records, EBSCOhost yielded 32 results, Google Scholar yielded 36 results, and WorldCat yielded four results. Records excluded with reasons equalled 3378. Thus, 72 records were retained at the end of Step 2.

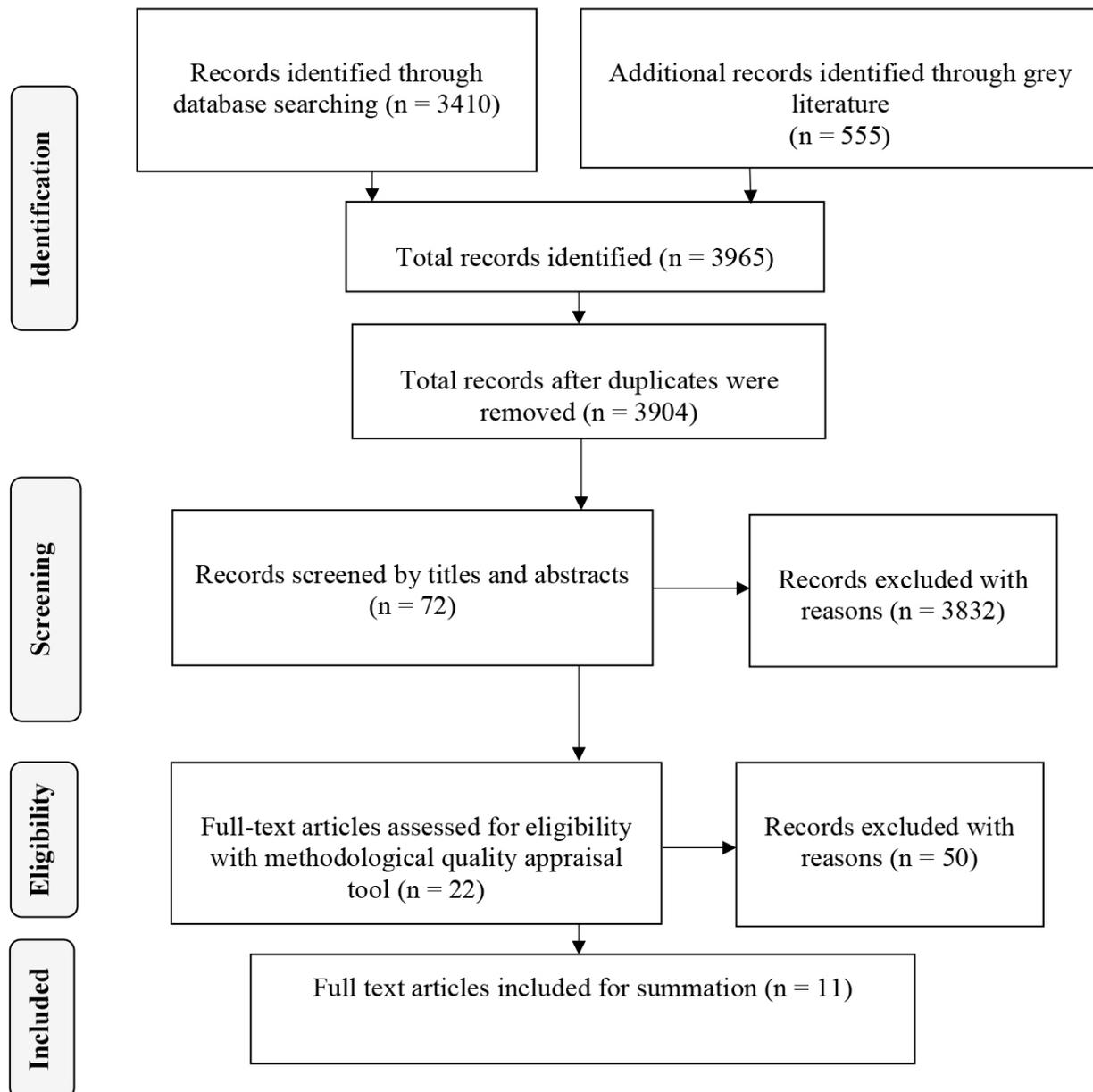
Thereafter, the researcher retrieved full-text articles that met the inclusion criteria for the systematic review. Critical appraisal ensures that the reader is directed to key aspects of the study such as its design, method, participants, and several other variables (Petticrew et al., 2013). If a critical appraisal score of satisfactory (34%-66%) to good (67%-100%) was obtained, the study was considered for inclusion in the systematic review. Thus, 22 records were eligible for review

following the critical appraisal process. Of the 22 articles that were methodologically appraised, 11 were suitable for use in this systematic review because they fell within the range of 67–100%

(i.e., the good category). Figure 1 shows a schematic representation of the studies included in the systematic review.

Figure 1

PRISMA Flow Diagram of Included Studies

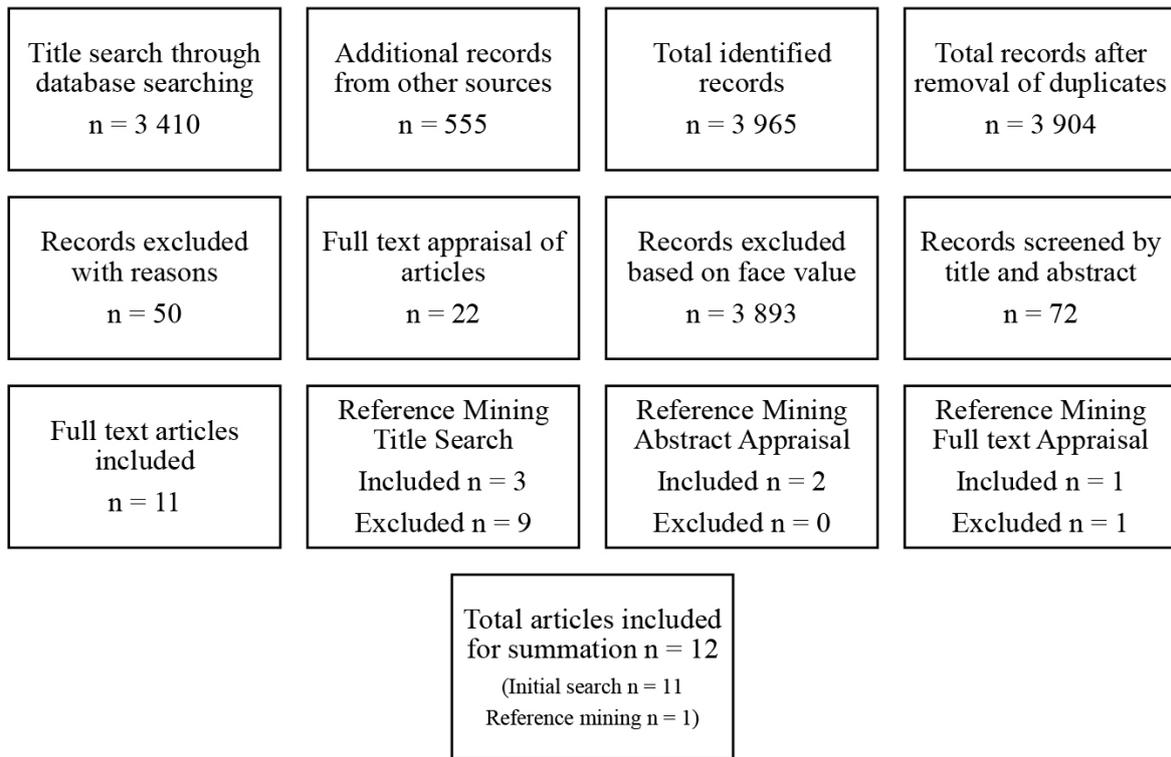


In pursuance to Munnik (2018), it is essential that reference mining be conducted, that is, locating additional records from the reference lists of all articles that were included. According to Alves et al. (2018), reference mining (citation chaining) refers to the detection, extraction, and classification of references within the full texts

of scholarly publications. One could say that this is a form of expanding the search by reviewing the references from the selected articles, hoping to identify additional relevant articles. Reference mining was therefore conducted on the 11 records. Bearing the 2009 – 2019 parameter in mind, a further 12 records were obtained (Figure 2).

Figure 2

Article Search Procedure with Reference Mining



Five of the 12 records were excluded because they were already part of the initial systematic review database search (i.e., duplicates). Three of the remaining seven records were retained based on the title search alone. The remaining records did not meet the inclusion criteria or cover what was being asked in the research question. Two articles were included for abstract appraisal. Based on the abstract appraisal process, one

article was retained. Following the abstract appraisal process, one article was retained for the full-text appraisal; thus, the article was included in the review. Using the critical appraisal tool, a score of 71% was generated for additional articles sourced through reference mining. Table 1 indicates the final ranking, and Table 2 depicts a synopsis of the articles included in this systematic review.

Table 1

Final Ranking of Articles

Author/s	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Raw Score	Percentage
Hull et al. (2011)	1	1	1	1	1	1	1	7/7	100%
Cobb-Leonard & Scott-Jones (2010)	1	1	0	1	1	1	1	6/7	86%
Taggart et al. (2018)	1	1	1	1	0	1	1	6/7	86%
Hawes & Berkley-Patton (2014)	0	1	1	1	1	1	1	6/7	86%
Amoako-Agyeman (2012)	1	0	1	1	1	1	1	6/7	86%
Edwards et al. (2011)	1	0	0	1	0	1	1	5/7	71%
Gold et al. (2010)	1	0	0	1	1	1	1	5/7	71%
Haglund & Fehring (2010)	1	0	1	1	0	1	1	5/7	71%
Landor et al. (2011)	1	0	0	1	1	1	1	5/7	71%
Muhammed et al. (2017)	1	0	0	1	1	1	1	5/7	71%
Vasilenko & Espinosa-Hernandez (2019)	1	0	1	1	0	1	1	5/7	71%
Burdette & Hill (2009)	1	1	0	1	1	0	1	5/7	71%

Table 2*Conspectus of Articles included for Summation*

Author/s	Title	Publication date	Source	Location (DOI)
Hull et al. (2011)	Identifying the Causal Pathways from Religiosity to Delayed Adolescent Sexual Behaviour	2011	EBSCOhost	10.1080/00224499.2010.521868
Cobb-Leonard & Scott-Jones (2010)	A Belief-Behaviour Gap? Exploring Religiosity and Sexual Activity Among High School Seniors	2010	EBSCOhost	10.1177/0743558409357732
Taggart et al. (2018)	The Role of Religious Socialisation and Religiosity in African American and Caribbean Black Adolescents' Sexual Initiation	2018	EBSCOhost	10.1007/s10943-018-0605-3
Hawes & Berkley-Patton (2014)	Religiosity and Risky Sexual Behaviours among an African American Church-based Population	2014	EBSCOhost	10.1007/s10943-012-9651-4
Amoako-Agyeman (2012)	Adolescent religiosity and attitudes to HIV and AIDS in Ghana	2012	Google Scholar and WorldCat	10.1080/17290376.2012.745665
Edwards et al.(2011)	Religiosity and Sexual Risk Behaviours Among Latina Adolescents: Trends from 1995 to 2008	2011	EBSCOhost	10.1089/jwh.2010.1949
Gold et al. (2010)	Associations between Religiosity and Sexual and Contraceptive Behaviours	2010	EBSCOhost	10.1016/j.jpag.2010.02.012
Haglund & Fehring (2010)	The Association of Religiosity, Sexual Education, and Parental Factors with Risky Sexual Behaviours Among Adolescents and Young Adults	2010	EBSCOhost	10.1007/s10943-009-9267-5
Landor et al. (2011)	The Role of Religiosity in the	2011	EBSCOhost	10.1007/s10964-010-9598-2

Author/s	Title	Publication date	Source	Location (DOI)
Muhammed et al. (2017)	Relationship Between Parents, Peers, and Adolescent Risky Sexual Behaviour Role of Religion in Preventing Youth Sexual Activity in Malaysia: A Mixed Methods Study	2017	EBSCOhost	10.1007/s10943-016-0185-z
Vasilenko & Espinosa-Hernandez (2019)	Multidimensional Profiles of Religiosity Among Adolescents: Associations With Sexual Behaviours and Romantic Relationships	2019	EBSCOhost	10.1111/jora.12444

Data Synthesis

This systematic review aimed to identify the risk and protective factors of intrinsic and extrinsic religiosity in adolescents in relation to sexual Behaviour. Various approaches to meta-synthesis of qualitative data exist; however, the approach found to be most suitable for this systematic review is descriptive meta-synthesis, also known as meta-summary. From Petticrew et al.'s (2013) perspective, meta-synthesis can be described as bringing together and breaking down findings. This is followed by examining the findings, discovering the essential features, and combining the phenomena into a transformed whole. According to Chrastina (2018), descriptive meta-synthesis requires ranking the studies and tabulating the extracted data. In other words, descriptive meta-synthesis includes a compendium of the essential findings extracted as themes across identifiable articles (Munnik, 2018). In other words, descriptive meta-synthesis includes a compendium of essential findings extracted as themes across identifiable articles (Munnik, 2018). Thus, the aim of using descriptive meta-synthesis is to combine, understand, and synthesise findings from selected studies to generate a comprehensive understanding of the phenomena under study.

Overview of the Reviewed Studies

The final sample for this systematic review consisted of 12 articles published between 2009 and 2019. Regarding the geographical location, 10 studies were conducted in the USA (Burdette & Hill, 2009; Cobb-Leonard & Scott-Jones, 2010; Edwards et al., 2011; Gold et al., 2010; Haglund & Fehring, 2010; Hawes & Berkley Patton, 2014; Hull et al., 2011; Landor et al., 2011; Taggart et al., 2018; Vasilenko & Espinosa-Hernandez, 2019). Two other studies were conducted in Ghana (Amoako-Agyeman, 2012) and Malaysia (Muhammed et al., 2017). Two other studies were conducted in Ghana (Amoako-Agyeman, 2012) and Malaysia (Muhammed et al., 2017).

The participants' ages ranged from 13 to 19 years, with only three studies having participants as old as 21 years (Edwards et al., 2011; Gold et al., 2010; Haglund & Fehring, 2010) and one study having participants as old as 22 years (Muhammed et al., 2017). Appertaining a methodological framework, seven studies were quantitative (Amoako-Agyeman, 2012; Burdette & Hill, 2009; Gold et al., 2010; Edwards et al., 2011; Haglund & Fehring, 2010; Hawes & Berkley-Patton, 2014; Hull et al., 2011; Vasilenko & Espinosa-Hernandez, 2019). These two are qualitative (Landor et al., 2011; Vasilenko &

Espinosa-Hernandez, 2019). Two studies were qualitative (Landor et al., 2011; Vasilenko & Espinosa-Hernandez, 2013). The majority of the studies had cross-sectional research designs (Amoako-Agyeman, 2012; Burdette & Hill, 2009; Cobb-Leonard & Scott-Jones, 2010; Gold et al., 2010; Haglund & Fehring, 2010; Hawes & Berkley-Patton, 2014; Landor et al., 2011; Muhammed et al., 2017; Taggart et al., 2018; Vasilenko & Espinosa-Hernandez, 2013), while one study had a longitudinal study research design (Hull et al., 2011). The majority of the studies had cross-sectional research designs (Amoako-Agyeman, 2012; Burdette & Hill, 2009; Cobb Leonard & Scott-Jones, 2010; Gold et al., 2010; Haglund & Fehring, 2010; Hawes & Berkley-Patton, 2014; Landor et al., 2011; Muhammed et al., 2017; Taggart et al., 2018; Vasilenko & Espinosa-Hernandez, 2013), whereas one study had a longitudinal study research design (Hull et al., 2011). One study was cross-sequential in nature as it combined both longitudinal and cross-sectional designs (Edwards et al., 2011). One study was cross-sequential in nature, combining both longitudinal and cross-sectional designs (Edwards et al., 2011).

Meta-synthesis of reviewed studies

As mentioned, various approaches to meta-synthesis of qualitative data exist; however, the approach found to be the most suitable for this systematic review was descriptive meta-synthesis. As previously mentioned, various approaches to the meta-synthesis of qualitative data exist. However, the approach found to be most suitable for this systematic review was descriptive meta-synthesis. From the perspective of Atkins et al. (2008), meta-synthesis can be described as bringing together and breaking down findings, followed by examining the findings, discovering important features, and combining the phenomena into a transformed whole. In accordance with Chrastina (2018), descriptive meta-synthesis necessitates ranking the studies and tabulating the extracted data. The ranking of the studies is shown in Table 1, and the tabulation of the extracted data is shown in Table 2.

This systematic review aimed to identify the risk and protective factors of intrinsic and extrinsic

religiosity in adolescents in relation to sexual Behaviour. Intrinsic religiosity refers to the sincere practice of one's religion (Allport & Ross, 1967; Ashley et al., 2013). This is a genuine product of embedded religious socialisation. Extrinsic religiosity refers to a negative way of being religious. It refers to Behaviour practised in an effort to maintain an appearance of religiousness (Allport & Ross, 1967; Ashley et al., 2013). Not every article in this review used the terms intrinsic and extrinsic religiosity. Some articles mentioned high religiosity (akin to intrinsic religiosity) and low religiosity (which is not the same as extrinsic religiosity). Contemporary researchers have found that religiosity may protect against or be a risk factor for unsafe sexual practices (Landor et al., 2011; Lefkowitz et al., 2004; Miller & Gur 2002; Zaleski & Schiaffino, 2000).

As per the American Psychological Association (2022), a protective factor refers to a clearly defined Behaviour or psychological environmental characteristic associated with a decreased probability that a particular disease or disorder will develop in an individual. Two protective factors were identified in the articles under review:

- Theme 1** Salience of religiosity delays sexual activity and decreases risky sexual Behaviour
- Theme 2** Frequency of religious services attendance delays sexual activity and decreases risky sexual Behaviour

By contrast, a risk factor refers to a clearly defined Behaviour or psychological or environmental characteristic associated with an increased likelihood that a disease or disorder will subsequently develop in an individual (American Psychological Association, 2022). Two risk factors were identified in the reviewed articles:

- Theme 3** Disconnect between being highly religious and using condoms
- Theme 4** No/low/extrinsic religiosity and risky sexual health Behaviours

Theme 1: Salience of Religiosity Delays Sexual Activity and Decreases Risky Sexual Behaviour

Theme 1 was reflected in seven of the twelve articles under review (Amoako-Agyeman, 2012; Burdette & Hill, 2009; Edwards et al., 2011; Gold et al., 2010; Haglund & Fehring, 2010; Landor et al., 2011; Muhammed et al., 2017).

For decades, international research has shown that religiosity and adolescent sexual Behaviour and attitudes are strongly correlated (Hollander, 2003; Meier, 2003; Nonnemaker et al., 2003; Steinman & Zimmerman, 2004; Sterk et al., 2003). Lefkowitz (2004) and colleagues found that religiosity was the strongest predictor of sexual Behaviour among adolescents. Many scholars within the field of adolescent sexuality and religiosity (Lefkowitz et al., 2004; Nonnemaker et al., 2003; Rostosky et al., 2003; Sinha et al., 2007; Steinman & Zimmerman, 2004; Zaleski & Schiaffino, 2000) have found that adolescents who have high/intrinsic religiosity tend less likely to be sexually active than their peers who report lower religiosity. This particular theme was accentuated in seven of the articles under review. In addition, high/intrinsic religiosity correlates with a lower likelihood of adolescents being sexually active; adolescents who see religiosity as salient in their lives are more likely to delay sexual activity, as argued by Burdette and Hill (2009).

To highlight specific examples of this theme, in the Amoako-Agyeman (2012) study, the author was interested in establishing the relationships between learners' religiosity and attitudes with regard to drug injection, teen abstinence, HIV threat, protection, peer pressure, responsibility, and condom use. In general, the findings of the study demonstrated that high/intrinsic religiosity may exemplify a notable protective factor, and this supports the assumption that adolescents who strongly identify with religious teachings and traditions are less likely to engage in risky sexual Behaviours. While the salience of religiosity delays sexual activity and decreases risky sexual Behaviour, highly religious adolescents tend to have fewer sexual partners, and then remain virgins by the age of 21 years. To illustrate this, the researcher would like to highlight the findings in the Haglund and Fehring (2010) investigation.

In Haglund and Fehring's (2010) study of 3168 adolescents between the ages of 15 and 21 years, 76% reported that religion was very important to them. Of the respondents who viewed religion as very important, 27% were less likely to have had sex compared to adolescents who did not view religion as very important. The respondents who regarded religion as very significant reported a mean of 1.9 for lifetime sexual partners compared to 2.9. partners, for whom religion is considered less important (Haglund & Fehring, 2010). Previous studies (not part of this review) have also shown consistency, demonstrating an association between high religiosity and fewer sexual partners (Davidson et al., 2004; Meier, 2003; Miller & Gur, 2002; Thornton & Camburn, 1989). The findings in the study by Haglund and Fehring (2010) showed a 20% survival rate of virgins at the age of 21 among adolescents who did not view religion as very important. The findings regarding the virgin survival rate and fewer sexual partners in the study by Haglund and Fehring (2010) were consistent with those of Edwards et al. (2011).

Edwards et al. (2011) investigated trends in the impact of religiosity on the sexual activity of Latina adolescents (aged 15 – 21) in the USA from 1995 to 2008. This study was a secondary analysis of three cross-sectional USA population-based surveys that focused on the 1995, 2002, and 2006 – 2008 cycles of the National Survey of Family Growth. The dataset in Edwards et al.'s (2011) study centred on Hispanic female adolescents; in particular, n = 267 (1995 cycle), n = 306 (2002 cycle), and n = 400 (2006 – 2008 cycle). Edwards et al. (2011) reported that there were no significant differences in the probability of sexual activity among the three cohorts. These scholars explained that the 1995 cohort had more lifetime partners than the 2002 cohort did. The mean age for coitarche in all three groups was 16.1., 16.4, and 16.3, respectively. Less than half of the Latinas in 1995 (44%) and 2006 – 2008 (44%) reported that religion was very important to them, whereas 50% in the 2002 cycle reported that religion was important to them. The Latinas in the 1995 cycle who valued religion as very important had less sexual initiation, significantly fewer partners, and a 43% survival rate as virgins at the age of 21 compared to adolescents who

did not see it as important. In the 2002 cycle, the high religiosity importance group also had higher virgin survival rates (23%) than the low importance group (20%). Those in the 2006 – 2008 cycle, who fell into the high-importance category, had significantly fewer sexual partners and a 34% survival rate as virgins at the age of 21, as opposed to those in the low-importance group. The importance of religion was positively associated with less risky Behaviour in all cohorts, which is consistent with previous studies (DuRant et al., 1990; Edwards et al., 2011; Haglund & Fehring, 2010; Liebowitz et al., 1999). Edwards et al.'s (2011) study thus indicates that holding religion as exceedingly influential was protective in all three-year cycles in their study.

Gold et al.'s (2010) findings demonstrated that participants internalised the messages of their religious leaders and; that their religious beliefs affected their sexual decision-making. This could be quite meaningful, as the possible internalisation of spiritual messages from religious leaders and religious books by adolescents could contribute to high/intrinsic religiosity. However, even though adolescents' parents may be highly religious, this does not mean that adolescents are naturally highly religious and less sexually active. Landor et al. (2011) focussed on the role of religiosity in the relationship between parents, peers, and adolescents' risky sexual Behaviour. These scholars sampled 612 African American adolescents, with ages ranging from 15 to 19 years. This project comprised four waves, and all data for this longitudinal study were collected two years apart. Data revealed that 89% of parents reported being highly religious.

Interestingly, approximately 97% of adolescents indicated being sexually active. Landor et al.'s study (2011) highlights the point that high/intrinsic religiosity on the part of the parents does not automatically translate into high/intrinsic religiosity on the part of the adolescents. Religiosity is indeed a personal matter.

According to Erik Erikson's developmental theory, adolescents develop their own sense of identity during the adolescent period. (Papalia & Martorell, 2021). During this time, they may wrestle with the question: "Who am I?" as they work to establish their own identity—that is, a

coherent conception of the self-made up of goals, values, and beliefs in which a person is solidly committed (Rathus, 2020). Erikson explained that the primary task of adolescents is to develop a sense of who they are and what they stand for (Rathus, 2020). During adolescence, teenagers attempt to resolve three issues: choice of occupation, adoption of values, and development of sexual identity (Papalia & Martorell, 2021). Hence, it can be argued that part of identity resolution is to adopt a particular value system that pertains to one's religiosity. Thus, there is a time in every adolescent's life when they must internalise their own values, including their religious values. There has been extensive interest in the impact of intrinsic and extrinsic religiosity on adolescents' sexual choice (Ashley et al. 2013; Espinosa, 2008; Hull et al., 2011; Landor et al., 2011; McMillen et al. 2011; Meier, 2000; Sherr & Dyer 2010; Vazsonyi & Jenkins 2010). Based on the results of extant research on this topic, it has been postulated that intrinsic religiosity, in particular, plays a role in decreasing at-risk sexual Behaviours and promoting healthier attitudes toward sexuality. Hence, no matter how scholars phrase it, high or intrinsic or private religiosity seems to delay and decrease adolescent sexual Behaviour. This is consistent with what was mentioned in the particular study under review. Burdette and Hill (2009) investigated religious involvement and the transition into adolescent sexual activities, using 2002 and 2005 data from the National Survey of Youth and Religions. Their sample consisted of 3290 adolescents between 13 and 17 years. Burdette and Hill's (2009) findings propose that the link between religious involvement and adolescent sexual activity differs according to the measure of religious involvement and the form of sexual activity under study. They found that religious salience is strongly associated with delayed adolescent sexual Behaviour. Burdette and Hill (2009) found that private religiosity appears to be more strongly associated with sexual activity as teenagers move through adolescence. Burdette and Hill (2009) argued that intrinsic/private religious practices notably delay sexual activity as youth move through adolescence. The reason for this may be that prayer and Bible reading

reinforce doctrines about morality and sexual restraint.

It could be argued that the salience of one's religiosity should not only remain on a cognitive level but should also translate into displaying salience by involving oneself in religious activities. Muhammed et al. (2017) spoke to this point: "One of the ways in which religion can be effective in assisting youth to adopt a healthier, safer lifestyle is by encouraging them to get involved in religious activities" (Muhammed et al., 2017, p. 1929). Religious practices (such as prayer, scriptural reading, etc.) and/or engagement in religious activities (such as praise and worship, getting involved in various ministries, etc.) seem to play an important role in enhancing intrinsic religiosity (Hatcher et al., 2008; Musgrave et al., 2002). The social control perspective assumes that social institutions such as family, school, and religion endorse values that align with conventional Behaviour because they socialise members to adopt the norms and values of the group (Gyimah et al., 2013). Thus, the propensity to engage in deviant Behaviour is diminished. Consequently, one could argue that intrinsic religiosity helps adolescents develop appropriate sexual values and decreases their sexual deviance.

High/intrinsic religiosity appears to be more of a protective factor for female adolescents than for male adolescents. In an analysis of their data, Gold et al. (2010) found that female adolescents with high religiosity were less likely to have sexual intercourse. This finding supported the first hypothesis in the Gold et al. (2010) study, which stated that high religiosity would be independently associated with lower odds of having sexual intercourse. In addition, in comparison with those from the low religiosity group, those in the high religiosity group were less likely to have ever been pregnant or to have ever had an STI, supporting hypotheses two and three in this study. It was also found that, compared to the low religiosity group, those with high religiosity were less likely to have had fewer than four lifetime partners, supporting hypothesis four in this study.

It must be added that Muhammed et al.'s (2017) findings were not consistent with the findings of Gold et al. (2010), who pointed out that religiosity

seems to be more protective with regard to females. In general, the aforementioned scholars found that sexually active young adolescent females with high/intrinsic religiosity were less likely to have fewer reported pregnancies, STIs, and lifetime partners, in accordance with Gold et al. (2010). However, Muhammed et al. (2017) found the opposite.

Muhammed et al. (2017) conducted a mixed-method study on the role of religion in preventing youth sexual activity in Malaysia. A self-administered survey was conducted with 1026 youth, while 15 participants took part in face-to-face interviews. Of the 15 students interviewed by Muhammed et al. (2017), seven participants were sexually active, while eight were not. These scholars found that two major themes emerged from their study after thematic analysis was conducted: (1) having faith in religion prevents risky sexual activity and (2) strong sexual desires and ignoring religion perpetuate sexual activity (Muhammed et al., 2017). Of the 1026 youth who participated in the quantitative part of the study, 10.7% reported having sex in the past, 8.7% had been sexually active over the last 12 months, and 4.3% were sexually active at the time of data collection. In general, the adolescents scored high in intrinsic religiosity; however, data findings revealed that male adolescents showed significantly higher religiosity scores and religious activity than females in this study (Muhammed et al., 2017). This contradicts the findings of Gold et al. (2010), who found that religiosity seems more protective for females than for males.

Overall, the research findings underscored in these articles under review were consistent with the majority of antecedent research in the area, which concluded that higher/intrinsic religiosity is associated with a delay in sexual activity and a decrease in risky sexual Behaviour (Bearman & Bruckner, 2001; Fehring et al., 1998; Hardy & Raffaelli, 2003; Lammers et al., 2000; Lefkowitz et al., 2004; Manlove et al., 2006; Meier, 2003; Rostosky et al., 2003).

Theme 2: Frequency of Religious Services Attendance Delays Sexual Activity and Decreases Risky Sexual Behaviour

Theme 2 was reflected in seven of the twelve articles under review (Burdette & Hill, 2009; Cobb-Leonard & Scott-Jones, 2010; Edwards et al., 2011; Gold et al., 2010; Haglund & Fehring, 2010; Hawes & Berkley-Patton, 2014; Hull et al., 2011).

Hull et al. (2011) found that attendance at religious services is a major protective factor against adolescent sexual Behaviour. This is consistent with the findings of Burdette and Hill (2009), who found that higher levels of church attendance seem to be associated with delays in both sexual touching and sexual debut. In their investigation, the authors reported on adolescents who routinely and occasionally attended religious services and found that even periodic attendance benefits refraining from engaging in sexual Behaviour (Hull et al., 2011). In the study by Hull et al. (2011), many participants believed that engagement in sexual activity did not have many positive consequences. Furthermore, many teens in this study believed that the negative ramifications outweighed the positive ones. Hull et al.'s (2011) study adds to the current body of research regarding the protective effects of religiosity, placing special emphasis on church attendance.

Hawes and Berkley-Patton (2014) focused on the relationship between religiosity and risky sexual Behaviours in a sample of 225 African American church-based populations. Participants were generally found to be highly religious; this was demonstrated by their daily engagement in reflecting on God, prayer, direct experiences with God, and reading of scripture. These participants underscored the importance of religious service attendance and indicated that they attended churches twice per week. Thus, the higher the frequency of religious service attendance, the less likely they are to engage in risky sexual Behaviour. This was consistent with the findings of another article under review. In terms of the frequency of religious service attendance in the Edwards et al. (2011) study, attendance was similar in all three cohorts; 35% of Latinas attended regularly in 1995; 36% and 34% of the

adolescents reported frequent service attendance in the other two cycles, respectively. Those who regularly attended religious services were less likely to have sex than were infrequent attendees.

When analysing the articles under review, the frequency of religious service attendance delaying adolescent sexual activity seemed to be a common theme. However, it must be noted that the frequency of religious service attendance also had a protective value in terms of whether adolescents would ever have sex during their teen years. Edwards et al. (2011) found that frequent service attendance was protective across all three-year cycles and all three dependent variables: likelihood of having sex, number of partners, and survival to virgin rate. Based on the findings of Edwards et al. (2011), it appears that church attendance is a more influential variable with reference to sexual attitudes and Behaviour, rather than simply valuing religion as important, as highlighted by the first theme in this systematic review.

According to Gold et al. (2010), having a religious affiliation was not significantly associated with having sexual intercourse. Interestingly, the frequency of attendance in religious services was significantly associated with whether these adolescents had intercourse. With reference to religious service attendance, 32% of participants reported frequent attendance. Participants who attended religious services frequently were 46% less likely to have ever had sex than adolescents who attended services less frequently. It must be noted that the frequency of religious service attendance does not automatically mean that all adolescents would not commence sexual intercourse at all. The participants in their study who frequently attended religious services had significantly fewer lifetime sexual partners than less frequent attendees. In addition, Haglund and Fehring (2010) found that regular attendees had a 25% survival rate as virgins at the age of 21, compared to a 17% rate among those who attended infrequently.

Research demonstrates that frequent attendees who are sexually active have significantly fewer sexual partners, as indicated by the scholars Haglund and Fehring (2010). In general, Haglund and Fehring (2010) found that adolescents with

high religiosity reported more frequent religious service attendance and were more likely to delay sexual intercourse and have fewer sexual partners. The frequency of religious service attendance was negatively associated with sexual activity. Furthermore, their study found that religiosity, parental education, formal sexual education, and two-parent families were all associated with decreased risky sexual Behaviours among adolescents.

Theme 3: Disconnect Between Being Highly Religious and Using Condoms

Theme 3 was reflected in 4 of the 12 articles under review (Amoako-Agyeman, 2012; Cobb-Leonard & Scott-Jones, 2010; Hawes & Berkley-Patton, 2014; Landor et al., 2011). A major obstacle to the protective effect of religiosity is that religious adolescents who are sexually active are less likely to report safe sexual practices, such as condom use (Bearman & Bruckner, 2001, as cited in Amoako-Agyeman, 2012). Landor et al. (2011) limns that high/intrinsic religiosity may act as an unintended risk factor for unprotected adolescent sexual Behaviour. This is consistent with the findings of Regnerus (2007), who stated that “religious adolescents who commit themselves to sexual abstinence before marriage may fail to protect themselves if they become sexually active. Planning contraception might suggest an intent to engage in sexual intercourse and an abandonment of the commitment to remain abstinent” (Regnerus as cited in Cobb-Leonard & Scott-Jones, 2010, p. 581).

Previous studies (not part of this review) also found that religiosity is associated with a decreased likelihood of contraceptive use among sexually active adolescents (Manlove et al., as cited in Cobb-Leonard & Scott-Jones, 2010; Zaleski & Schiaffino, 2000). The findings of these prior studies are consistent with what was discovered in the following article under review, that not only was there a decreased likelihood of using condoms but also a negative attitude towards protection existed among adolescents. For example, Amoako-Agyeman (2012) focussed on 448 adolescents attending a junior high school in Ghana. All respondents in this investigation specified that they were religious, and most

participants reported being Christian (93.1%). One important finding of this study was that among the sample group, some misconceptions regarding condoms and general contraceptive protection existed. For example, 50% of this sample believed that one could not get HIV if one had sex once or twice, without a condom. Amoako-Agyeman (2012) states that “This seems to suggest a low perception of the risks of infection, a major worry which has the potential to endanger the sexually active and make them more vulnerable to infections and other dangers” (p. 231). Research findings have demonstrated that learners who have intrinsic religiosity, that is, have a daily spiritual experience and personal relationship with God, have positive attitudes toward teen abstinence, and are tolerant of HIV-infected individuals. However, they still have a negative attitude towards protection (i.e., condom usage in particular). In the Amoako-Agyeman (2012) study, participants who were high in intrinsic religiosity were less likely to use condoms once they became sexually active, which is consistent with prior research studies. In essence, intrinsic religiosity acts as an unintended risk factor for unprotected sexual Behaviour (Landor et al., 2011). However, other scholars have added that it is not merely that a link exists between high religiosity and low condomising; it was found that the more committed a young person is to his/her religion and to his/her romantic partner, the lower the chances that condoms would be used (Cobb-Leonard & Scott-Jones, 2010). Thus, a negative attitude seems to exist towards condoms as a contraceptive measure. Some authors have found that religious adolescents who use contraception are more likely to use methods that protect against pregnancy rather than STIs and HIV (Cobb-Leonard & Scott-Jones, 2010). Therefore, there may be a preference for using various hormonal-type contraceptive measures rather than condoms. However, it can be argued that the aforementioned reason is insufficient.

Highly religious youth who do not condomise or who use condoms inconsistently may create circumstances in which their physical safety is at risk. To illustrate, in Hawes and Berkley-Patton’s (2014) study, only 15% of a sample of 225 religious participants reported consistent condom use. The aforementioned scholars found that 25%

had sex while intoxicated by drugs or inebriated by alcohol, and 11% of the participants had sex against their will. These are examples of risky Behaviours that are often linked to inconsistent condom use.

It could be that one's age/maturity level plays a role in whether or not to condomise. However, not all highly religious adolescents fail to provide adequate protection. To exemplify this point, more than 94% of sexually active seniors reported using condoms in the Cobb-Leonard and Scott-Jones (2010) study. Thus, it can be argued that most seniors used condoms, indicating that they valued protecting themselves from STI transmission and unplanned pregnancies. Interestingly, older adolescents did not view contraceptive use as antithetical of their religion.

Hawes and Berkley-Patton (2014) remarked that discussing condom usage within a religious context is sensitive. Yet, it must be mentioned that adolescents who consider themselves to be highly religious but also sexually active are at great risk for STI or HIV transmission or unwanted pregnancy, if they are not only using condoms but also using these contraceptive measures consistently. To conclude this theme, it can be argued that adolescents can be high in intrinsic religiosity, be highly knowledgeable about sexuality, and still protect themselves from STIs and unwanted pregnancy through the use of condoms once sexual activity has commenced.

Theme 4: No/low/extrinsic religiosity and risky sexual health Behaviours

Theme 4 was reflected in three of the twelve articles under review (Cobb-Leonard & Scott-Jones, 2010; Taggart et al., 2018; Vasilenko & Espinosa-Hernandez, 2019). To be frank, a few articles under review specifically discussed extrinsic religiosity.

The two patterns of religiosity that have been the focus of this research project are intrinsic and extrinsic religiosity. Adolescents may fall under either of these categories or an alternative third option exists, whereby an adolescent may be completely non-religious. This is demonstrated by the absence of religious Behaviour and the

insignificance of religiosity pertaining to one's own life.

Vasilenko and Espinosa-Hernandez (2019) were specifically interested in how different patterns of religiosity may predict sexual Behaviours and romantic relationships. A latent class analysis was done on 10149 adolescents from the National Longitudinal Study of Adolescent to Adult Health. While it was found that a large proportion of the adolescents attended religious services and youth activities and saw their religion as salient to them, that is, they fell into the high/intrinsic religiosity classification, approximately one-third of this sample fell under the "non-religious" category, which was categorized by a complete lack of religious Behaviour and the importance of religion (Vasilenko & Espinosa-Hernandez, 2019). However, the focus of this systematic review is not to place a spotlight on non-religious orientation. In this section, a brief discussion will be held on the risk factors associated with adolescents possessing an extrinsic religious orientation. As already mentioned, there has been extensive interest in the impact of extrinsic religiosity on adolescents' sexual choices (Ashley et al., 2013; Espinosa, 2008; Hull et al., 2011; Landor et al., 2011; McMillen et al., 2011; Meier, 2000; Sherr & Dyer, 2010; Vazsonyi & Jenkins, 2010). Prior research has demonstrated that adolescents with an extrinsic orientation usually tend to display more permissive attitudes about sex and report more sexual activity than their intrinsically religious counterparts (Rostosky et al., 2004; Sinha et al., 2007).

Vasilenko and Espinosa-Hernandez (2019) found a class of adolescents who displayed features of extrinsic religiosity. These adolescents regularly attended religious services and youth activities, but did not view religion as important to them or pray often. This is consistent with what one author, Donahue (as cited in Lyons, 2014) raised. He stated that externally oriented adolescents do not internalise their religious beliefs in ways that provide meaning to them. Vasilenko and Espinosa-Hernandez (2019) uncovered that these groups of adolescents had the highest rates of past-year sex with a single partner and the highest rates of non-relationship

sex in young adulthood, yet also the lowest rates of past-year sex, marriage, and cohabitation in adulthood. Vasilenko and Espinosa-Hernandez (2019) argue that this may imply a deviance from developmental norms at different ages. Pursuant to Vasilenko and Espinosa-Hernandez (2019), engaging in these Behaviours at earlier ages may be seen as off-time and more problematic. When these same groups of adolescents reach young adulthood, they are less likely to engage in sex and form marital or cohabiting relationships, which may signal issues in forming intimate relationships (Vasilenko & Espinosa-Hernandez, 2019). Thus, it could be argued that having an extrinsic religious orientation in adolescence could result in sexual and relationship complications in young adulthood.

Religiosity does not seem to be a factor when some adolescents make sexual decisions; this seems to be evident in older adolescents. Research regarding sexual decision-making has found that the salience of religiosity tends to decrease as the age of adolescence increases. This is consistent with the findings of the two articles under review (Cobb-Leonard & Scott-Jones, 2010; Taggart et al., 2018). Older adolescents in the Cobb-Leonard and Scott-Jones (2010) study were asked what they considered before engaging in coitus, and very few adolescents mentioned religiosity. It was found that older adolescents did not point to their religiosity in relation to sexual activity or contraceptive use; rather, these high school seniors pointed to their commitment to sexual decision-making. Thus, in an investigation by Cobb-Leonard and Scott-Jones (2010), religiosity was not significantly related to whether older adolescents experienced sexual intercourse or age at coitarche. These findings are consistent with other findings in another article under review. Taggart et al. (2018) also found that the affiliation between religiosity and sexual initiation was weaker for older adolescents. One reason for this was that older adolescents were more likely than younger adolescents to be exposed to situations and opportunities (such as dating and reduced parental monitoring) where there would be sexual activity exploration. Taggart et al. (2018) suggests that because dating and reduced parental monitoring is normative, premarital

sexual activity would therefore be more socially permissive and normative in older adolescents.

Some studies have found a link between low religiosity in adolescence and high rates of sexual Behaviour. This is consistent with the findings of the article under review. Gold et al.'s (2010) study focussed on the associations between religiosity and sexual and contraceptive Behaviours among 572 female adolescents aged 13–21 years. In this investigation, 68% (n = 288) of the participants reported being sexually active, with a mean age of 15 years at the coitarche. It was found that among the 68% who had ever been sexually active, approximately 12% had ever been pregnant, and 17% had ever had an STI. Among the sexually active, the mean number of lifetime sexual partners was roughly five partners. Gold et al. (2010) found that among sexually active participants, 60% used condoms with a steady partner, 36% used a dual method (i.e., condom plus either vaginal spermicide or a hormonal method), 28% used oral contraceptives, 27% used withdrawal, 19% used condoms with non-steady partners, 18% used contraceptive injections, 10% used nothing at all, 9% made use of the transdermal patch, and 3% used vaginal spermicide. This study found that sexual activity was associated with low religiosity, older age, lower maternal education, and living without parents. Therefore, the findings highlighted in this subsection suggest that no/low or extrinsic religiosity also affects the sexual Behaviour of adolescents.

Conclusion

Understanding the precursors to risky sexual Behaviour is vital for developing interventions that encourage adolescents attending Christian faith-based schools to remain abstinent or reduce unsafe premarital sex during this crucial developmental period. In recent years, there has been a nascent discussion regarding religious-based initiatives to address psychological problems. However, research has demonstrated a severe need for immediate and focused empirical attention to the role of religiosity in adolescent sexual decision-making. Christian faith-based schools can play a significant role in the sexual morality of adolescents.

The output of this systematic review is source material for parents and teachers to assimilate. Parents would be better guided on how underscoring intrinsic religiosity in their children may safeguard them from inappropriate, risky sexual behaviour. Teachers would be able to improve their teaching by intentionally integrating intrinsic religiosity into sex education curricula and programmes. Thus, teachers and parents may be urged to promote intrinsic religiosity, encourage self-efficacy, and endorse other personal resources to resist peer pressure, rather than focussing primarily on the traditional “abstinence-only” programmes. Thus, teachers must recognize intrinsic and extrinsic differentiation. In light of this understanding, teachers may be able to develop programs that specifically promote intrinsic religiosity instead of extrinsic religiosity.

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Notes on Author

Olivia Bomester is the current Dean of the Faculty of Social Sciences and Education at Helderberg College of Higher Education – an Adventist tertiary institution which can be found in the Western Cape Province of South Africa. Olivia has over 15 years of experience in lecturing. She is an Associate Professor in Psychology.

Understanding the precursors to risky sexual Behaviour is vital for developing interventions that encourage adolescents to remain abstinent or reduce unsafe premarital sex. Olivia’s doctoral work determined the larger patterns of sexual

activity among adolescents attending Christian faith-based schools; determined how intrinsic and extrinsic religiosity impact adolescents’ sexual attitudes, and explored whether sexuality education curricula currently used at Christian-faith based high schools in the Western Cape Province of South Africa are relevant. Olivia’s study adopted a mixed-method research design using a cross-sectional survey and exploratory research designs. A systematic review was also conducted. The results of this study add to scholarly literature and would benefit adolescents, parents of adolescents, high school teachers, and researchers studying religiosity and sexuality.

ORCID iD

<https://orcid.org/0000-0001-5130-6278>

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