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# Dimensions of a Healthy Lifestyle among Early Adolescents: The Simultaneous Contribution of Spirituality and Family Cohesiveness

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Abstract. Early adolescents are prone to develop an unhealthy lifestyle. Along with personal factors, the microsystem's environment can influence individual development. This study aims to examine whether a personal factor (spirituality) and a microsystem factor (family cohesiveness) simultaneously contribute significantly to a healthy lifestyle among early adolescents. A quantitative approach was applied in this study, involving 166 participants in Jakarta, selected by convenience sampling. Health-Promoting Lifestyle Profile II (Cronbach's alpha = 0.800 - 0.840), the Brief Multidimensional Measure of Religiousness/ Spirituality (Cronbach's alpha = 0.725), and the Brief Family Relationship Scale (BFRS) – cohesiveness dimension (Cronbach's alpha = 0.934) were employed to collect data. Multiple regression analysis revealed that spirituality and family cohesiveness simultaneously contributed significantly to the healthy lifestyle of early adolescents, with a contribution of 6.1% to 30.9%. Thus, concurrently individual and familybased approaches should be considered in designing interventions to promote a healthy lifestyle in early adolescents.

**Keywords:** healthy lifestyle; spirituality; family cohesiveness.

### **INTRODUCTION**

Today's adolescent lifestyle is vulnerable to causing health concerns. In six major cities in Indonesia, 15% to 20% of the population consumes fast food for lunch (Soviyati et al., 2019). Adolescents who routinely consume fast food run the risk of being overweight or obese (Can et al., 2008). They are also vulnerable to exposure to cigarettes and addictive drugs. According to statistics from Basic Health Research (RISKESDAS, 2018), the prevalence of smoking among 10 to 18-yearolds increased from 7.2% to 9.0% (Badan Litbangkes Kementrian Kesehatan Republik Indonesia, 2018). Meanwhile, 26% of adolescents in Jakarta were active smokers, and 30% were alcoholics (RISKESDAS, 2018). In addition, adolescents are prone to sedentary behavior, which entails relatively low energy expenditure and includes sitting or lying down while watching television and similar activities (Arundhana et al., 2013; Pramudhita & Nadhiroh, 2017). With sedentary behavior, adolescents' physical activity tends to decline, making them more susceptible to obesity (Arundhana et al., 2013; Pramudhita & Nadhiroh, 2017). Accordingly, adolescents are more

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prone to psychological illnesses such as suicidal tendencies, anxiety, loneliness, self-esteem issues, and tension during times of storm and stress (Hoare et al., 2016).

These various phenomena imply that early adolescents are prone to unhealthy lifestyles. It might be because early adolescents enjoy experimenting and trying new things, including those potentially harmful to their health (Kim et al., 2015). Additionally, early adolescents tend not to contemplate the long-term consequences of their actions (Batubara, 2010). It can increase the likelihood of adolescents engaging in health-risk activities in early adulthood (Kim, 2011). Thus early adolescents must create a habit of living a healthy lifestyle. Moreover, a healthy lifestyle can improve the well-being and actualization of early adolescents and minimize their risk of death (Murdaugh et al., in Alzahrani et al., 2019). In light of the fact that early adolescents will eventually reach their productive years, it is crucial that they adopt a healthy lifestyle to maximize their physical and mental health. Determining the factors that contribute to the healthy lifestyle of early adolescents is therefore necessary. It is anticipated that the research results will serve as a guide for developing relevant interventions.

A healthy lifestyle is an individual-initiated action and perception that aims to preserve or improve an individual's health, self-actualization, and sense of fulfillment (Walker et al., 1987). By adopting a healthy lifestyle, individuals can exercise self-control to refrain from engaging in activities with a detrimental influence on their health and to involve in activities that promote health (Açıkgöz et al., 2017). A healthy lifestyle involves several actions (Ping et al., 2018). The six dimensions of a healthy lifestyle comprise spiritual growth, interpersonal relations, nutrition, physical activity, health responsibility, and stress management (Walker & Hill, 1996). Spiritual growth is a person's capacity to define and fulfill life goals, feel satisfied with himself or others, believe in his potential, and maximize well-being through pursuing meaning in life (Walker & Hill, 1996). The dimension of interpersonal relations is how individuals form ties and intimacy with others through communication (Walker & Hill, 1996). The nutritional dimension is a person's understanding, selection, and consumption of healthful food consumption (Walker & Hill 1996). Physical activity refers to an individual's capacity to plan and execute sports and other physical activities (Walker & Hill, 1996). The health responsibility dimension relates to a person's ability to be aware of his health state and his desire to seek competent help when unwell (Walker & Hill, 1996). Stress Management entails the identification and mobilization of psychological and physical resources to effectively control or reduce tension (Walker & Hill, 1996).

Spirituality is an essential element of adolescent development. Individuals develop the ability to think abstractly throughout adolescence, allowing them to begin contemplating abstract spiritual matters such as embracing life values (Good & Willoughby, 2008). Spirituality that emerges throughout adolescence might inspire early adolescents to develop a healthy lifestyle. King and Roeser (2011) discovered that adolescents with high levels of spirituality were less likely to engage in dangerous behaviors such as substance abuse, smoking, suicide, risky sexual behavior, and violence. Spirituality refers to an individual's relations with the transcendent, interaction with others that fosters compassion, and the presence of profound values and purpose to which individuals adhere (Mishra et al., 2017; Fetzer Institute, 1999). It can influence life decisions, activities, personality, and health (Mishra et al., 2017).

In addition to individual factors such as spirituality, the social environment also plays a significant role in assisting early adolescents in developing a healthy lifestyle. Individual engagement with the microsystem or immediate surroundings exerts the greatest impact on an individual's development (Rosa & Tudge, 2013). As a microsystem, the family plays a crucial role in the development of its members and interactions among them (Rosa & Tudge, 2013). According

to Sarafino & Smith (2012), families can support or discourage adopting healthy behaviors in children through consequences or modeling. Family cohesiveness is one of the features of the family that enables early adolescents to establish a healthy lifestyle. A cohesive family is distinguished by the closeness of its members' relationships, which manifests as warmth, support, and consistent family interactions (Elam et al., 2018; Regalia & Scabini, 2006). In a cohesive family, parents urge children to adopt healthy behaviors, and children who feel attached to their parents are more likely to heed their counsel (Franko et al., 2008). Therefore, it can be hypothesized that spirituality and family cohesiveness can assist early adolescents in developing a healthy lifestyle.

Furthermore, this study hypothesized that spirituality and family cohesiveness simultaneously contribute significantly to each dimension of a healthy lifestyle in early adolescents. Spiritual growth is a dimension of a healthy lifestyle (Walker & Hill, 1996). The spirituality variable, the independent variable in this study, and the dimension of spiritual growth in a healthy lifestyle, the dependent variable, have different foci. Spirituality focuses on an individual's perspective and relationship with God (including individual beliefs about God's existence and religious activities as rituals and coping) and interactions with other people (Fetzer Institute, 1999). In other words, the breadth of spirituality in this context emphasizes the individual's vertical relationship with God and horizontal interactions with others. In contrast, the spiritual growth dimension of a healthy lifestyle concentrates more on intrapersonal characteristics, such as the presence of goals, excitement, and a sense of life satisfaction (Walker & Hill, 1996). With God's help, adolescents with a high level of spirituality feel they can control the course of their lives (Idler, in Fetzer Institute, 1999). By thinking about this, individuals can determine and fulfill their life goals, realize their potential, and be thankful for their life circumstances and environment, all of which are indicators of spiritual growth (Coulson et al., 2004). In addition to spirituality, a cohesive family can assist family members in attaining life goals (Santos et al., 2015), where having a purpose in life is a hallmark of spiritual growth (Fetzer Institute, 1999).

The subsequent dimension of a healthy lifestyle is interpersonal relations (Walker & Hill 1996). Although they both include intimate relationships with others, the variable of family cohesiveness and the dimension of interpersonal relations in a healthy lifestyle have distinct meanings. Family cohesiveness emphasizes the bond between family members as a unit (Moos & Moos in Damulira et al., 2019). Meanwhile, interpersonal relations focus on the deliberate efforts of individuals to build harmonious interactions with persons outside of family (Walker & Hill, 1996). According to Jordan et al. (2014), individuals with a high level of spirituality tend to build healthy and mutually beneficial relationships with others. In addition to spirituality, a cohesive family can aid adolescents in developing interpersonal relations through education or modeling (Goleman, 2006). Cohesive families are characterized by warm and intimate relationships, open communication, and the development of cohesiveness among family members (Berc et al., 2017). Individuals can internalize or emulate such qualities of family interaction while building interpersonal relations with others, given the family's function as an educator of values and life skills (Lestari, 2012).

The following discusses the nutritional dimension of a healthy lifestyle. High-spiritual individuals believe that the body is a gift from God that must be cared for with excellent nutrition; caring for the body is a kind of worship to God and a means to serve the family (Oman & Lukoff, 2018). In addition to spirituality, a cohesive family safeguards children from taking substances harmful to the body, such as drugs, alcohol, and tobacco (Campos-Uscanga et al., 2018). A cohesive family strives to address the nutritional needs of its members (Herawati & Herlambang, 2019). Thus, spirituality and family cohesiveness can aid early adolescent nutritional intake, a dimension

of a healthy lifestyle.

In a healthy lifestyle, physical activity also plays a role (Walker & Hill, 1996). The greater an individual's spiritual level, the more likely they are to engage in physical activity (Park et al., 2018). Additionally, adolescents' physical activity can be boosted by a cohesive family environment (Bigman et al., 2015). A cohesive family can foster an atmosphere, encouraging adolescents to engage in greater physical activity (Loprinzi et al., 2012).

A healthy lifestyle also incorporates health responsibility. People with a high level of spirituality prefer to adhere to religious teachings, such as taking care of their bodies or physique and avoiding harmful substances (Fetzer Institute, 1999). Individual propensities to adopt a healthy lifestyle are impacted by religious attitudes, beliefs, or experiences (Tey et al., 2018). Moreover, a cohesive family can impact adolescents' health management (Franko et al., 2008). Cohesive families tend to adhere to treatments or engage in activities that improve health with relative ease (Vedanthan et al., 2016).

In addition to the five previously mentioned dimensions, a healthy lifestyle also includes the dimension of stress management (Walker & Hill, 1996). Spirituality has been recognized as a helpful method of stress management (Baldacchino & Drapper, in Tuck et al., 2006). It can bring a sense of peace and calm emotions, even while experiencing pressure (Joseph, 1998; Tuck et al., 2006). In addition to spirituality, family cohesiveness can also contribute to stress management. A cohesive family can provide support, therefore enhancing family members' capacity to deal with environmental pressures (Damulira et al., 2019).

Previous research on a healthy lifestyle has tended to focus on either individual factors such as self-regulation (Tey et al., 2018). subjective well-being (Tey et al., 2018), and optimism (Tomljenovic & Bubic, 2021) or environmental factors such as family functioning (Berge et al., 2013) and parental self-efficacy (Gerards et al., 2013). Individual development results from the interaction of personal and environmental variables (Bronfenbrenner, in Gamayanti, 2014). Thus, the originality of this study is that it examines the interaction between personal and environmental variables believed to contribute to the healthy lifestyle of early adolescents.

#### **METHOD**

This study employed a quantitative approach with a non-experimental design and causality type. This study hypothesized that spirituality and family cohesiveness simultaneously play a significant role in all dimensions of a healthy lifestyle among early adolescents. This research has passed the Universitas YARSI Research Ethics Committee's ethical test.

These participants comprised 166 Jakarta residents aged 12 to 15 years old. The majority of participants (69.3%) were female. Most participants (95.2%) resided with their parents, while 4.2% stayed with guardians (who are not biological family), and 0.6% lived in dormitories/boarding houses. These participants were recruited by convenience sampling. Online questionnaires were distributed to people who met the inclusion criteria.

This study assessed a healthy lifestyle using the Health-Promoting Lifestyle Profile II (HPLP II) questionnaire created by Walker et al. (1987). The original English content of HPLP II was translated into Indonesian by translators affiliated with foreign language institutions (back-to-back translation). Afterward, this translation was evaluated by a psychologist (expert judgment). The expert judgment results were utilized to alter the HPLP II item sentences. The HPLP II is a self-report questionnaire with 52 items and four Likert scales for the rating (never, sometimes, often, and regularly or always). It is a multidimensional instrument with six dimensions: spiritual growth,

interpersonal relations, physical activity, nutrition, health responsibility, and stress management. Examples of HPLP II statement items included "Feel I am growing and changing in positive ways" (spiritual growth dimension), "Settle conflict with others through discussion and compromise" (interpersonal relations dimension), "I have breakfast" (nutritional dimension), "Reach my target heart rate when exercising" (physical activity dimension), and "Ask for information from health professionals about how to take good care of myself" (stress management dimension).

The higher the score obtained on each dimension of the HPLP II instrument, the better the healthy lifestyle carried out by individuals on that dimension. Conversely, the lower the score on each dimension of the HPLP II instrument, the less healthy lifestyle individuals practice. HPLP II refers to a measuring instrument in which the items are written in English. In order to be utilized in this study, the HPLP II has undergone translation into Indonesian, expert judgment, readability tests on subjects with similar characteristics to the participants, as well as reliability tests and item analysis. The alpha reliability coefficient for each HPLP II dimension was between .800 and .840. Using the item rest correlation, item analysis revealed that all items had coefficients greater than 0.20, suggesting adequate HPLP II items (Crocker & Algina, in Azwar, 2016).

This study measured spirituality through the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS), developed by the Fetzer Institute (1999). The BMMRS covers daily spiritual experiences (individual beliefs about the existence of God in daily life), private religious practices, religious/spiritual coping applied by individuals in dealing with problems, religious support by religious communities, and organizational religiousness (behaviors, attitudes, and individual involvement with religious institutions such as mosques, churches, and temples), forgiveness (feeling forgiven by God, forgiving others and oneself, and feeling forgiven by others), and religious values/beliefs. The BMMRS employed in this study consisted of 29 items with varied ratings, ranging from 4 to 8 on the Likert scale. Thus, the acquired BMMRS score was converted into a z score before further analysis. Examples of statement items in the BMMRS are, "I feel that God is in my life", "I know that God has forgiven me", and "I ask God for strength, support, and guidance".

Higher spirituality corresponds to a higher BMMRS score. Conversely, spirituality declines with decreasing BMMRS scores. BMMRS is a measurement instrument with items written in English. To be utilized in this study, the BMMRS has undergone translation into Indonesian, expert judgment, readability test on people with characteristics comparable to those of the participants, as well as reliability test and item analysis. The BMMRS turned out to be quite reliable (a = 0.725). Meanwhile, item analysis employing the item rest correlation revealed that BMMRS items acquired a coefficient of more than 0.20, even though several items obtained an item rest correlation coefficient of less than 0.02. This study did not omit these items since the reliability coefficient of the BMMRS was relatively sufficient, and the readability test revealed that the participants could comprehend the items. Family cohesiveness was measured by the Brief Family Relationship Scale (BFRS) dimension of cohesiveness (Fok et al., in Pandya, 2021; Moos & Moos, 1976). The aspects of BRFS include family members' commitment, mutual help, and mutual support (Fok et al., in Pandya, 2021; Moos & Moos, 1976).

This measurement instrument comprises seven items with a Likert scale of 4 (0-3, strongly disagree to strongly agree). BRFS items include "In our family, we really help and support each other," "In our family, there is a feeling of togetherness," and "I am proud to be a part of our family." The BFRS acquired good reliability (a = 0.934). Meanwhile, item analysis utilizing item rest correlation revealed that all items had coefficients greater than 0.20, indicating sufficient items of the BFRS (Crocker & Algina, in Azwar, 2016).

The data were evaluated using several regression tests, preceded by an assumption test, notably the normality test, Pearson correlation test, linearity test, multicollinearity test, and heteroscedasticity test.

#### **RESULTS AND DISCUSSION**

# Descriptive Statistical Overview of Spirituality, Family Cohesiveness, and Healthy Lifestyle of Participants

The spirituality of participants yielded an average score of M = 92.58 (SD = 7.70). Family cohesiveness acquired an average score of 17.12 (SD = 3.70). Moreover, the dimensions of a healthy lifestyle acquired M = 27.82 (SD = 4.31) for spiritual growth, M = 25.41 (SD = 4.51) for interpersonal relations, M = 21.60 (SD = 3.61) for nutrition, M = 16.43 (SD = 4.96) for physical activity, M = 16.52 (SD = 5.46) for health responsibility, and M = 22.30 (SD = 4.35) for stress management. Table 1 displays the complete descriptive statistical data.

**Table 1.** Descriptive Statistics of Research Variables

Descriptive Statistics of Research variables								
Variable	Minimum Score	Maximum Score	M	SD				
Spirituality	63	108	92.58	7.70				
Family Cohesiveness	4	21	17.12	3.70				
Healthy Lifestyle: Spiritual Growth	18	36	27.82	4.31				
Interpersonal Relations	15	36	25.41	4.51				
Nutrition	13	31	21.60	3.61				
Physical Activity	9	30	16.43	4.96				
Health Responsibility	9	32	16.52	5.46				
Stress Management	12	32	22.30	4.35				

#### **Statistical Assumption Test**

The Kolmogorov-Smirnov normality test disclosed normal data distribution (p > 0.05). The multicollinearity test yielded a tolerance value of 0.872 and a VIF value of 1.147, demonstrating no multicollinearity in the two predictor variables in this research. The heteroscedasticity test using the Glejser test provided a significant value of p > 0.05, signifying no heteroscedasticity in the study data, therefore meeting the criteria for the multiple regression test.

The linearity test between the scores of spirituality and the healthy lifestyle dimensions generated a significance value of deviation from linearity of higher than 0.05. Thus, the data met the conditions for the multiple regression test since they were linear. The linearity test between the scores of family cohesiveness and the healthy lifestyle dimensions produced a significant value of deviation from linearity greater than 0.05, except for the nutrition dimension. Hence, the nutrition-family cohesiveness variable was excluded from the hypothesis testing since it was not eligible for the multiple regression test.

The Pearson correlation test revealed a significant association (p < 0.05) between spirituality and healthy lifestyle dimension scores. The resulting relationship had a positive direction. In other words, the inclination to adopt a healthy lifestyle in spiritual growth, interpersonal relations, health responsibility, physical activity, nutrition, and stress management increased as participants' spirituality rose.

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The Pearson correlation test revealed a significant relationship (p < 0.05) between the scores on family cohesiveness and the healthy lifestyle dimensions, including spiritual growth, interpersonal relations, health responsibility, physical activity, and stress management. The resulting relationship was positive. Therefore, the likelihood of adopting a healthy lifestyle on these dimensions increased as family cohesiveness rose. The scores on family cohesiveness and nutritional dimensions did not demonstrate a significant relationship (p > 0.05); thus, they were excluded from the hypothesis testing since they did not fulfill the parameters for multiple regression analysis. Table 2 illustrates the correlation test findings.

Table 2. Pearson Correlation Test Results for Research Variables

Variable	Spirituality	Family Cohesiveness	
Spiritual Growth	0.47**	0.42**	
Interpersonal Relations	0.31**	0.38**	
Nutrition	0.32**	0.12	
Physical Activity	0.26**	0.19*	
Health Responsibility	0.18*	0.22**	
Stress Management	0.52**	0.37**	

*Note:* \*\* p < 0.01 (2-tailed); \* p < 0.05 (2-tailed)

## **Hypothesis Testing**

The multiple regression test unveiled that spirituality and family cohesiveness substantially affected all healthy lifestyle dimensions, encompassing spiritual growth, interpersonal relations, health responsibility, physical activity, and stress management. These results validate the hypothesis that spirituality and family cohesiveness significantly impact all dimensions of a healthy lifestyle among early adolescents. These findings also confirm the ecological theory proposed by Bronfenbrenner (in Gamayanti, 2014), in which the interaction between an individual's personal factors and immediate environment affects his or her growth. Thus, spirituality reflects personal factors, whereas familial cohesiveness represents the immediate environment.

In general, spirituality and family cohesiveness contributed 6.1% to 30.9% to each dimension of a healthy lifestyle among the participants, as described in Table 3. It demonstrates that additional factors, ranging from 69.1% to 93.9%, could impact each dimension of a healthy lifestyle. According to prior research, self-efficacy, social support, optimism, and family functioning impact a healthy lifestyle (Chamroonsawasdi, Phoolphoklang, Nanthamongkolchai, & Munsawaengsub, 2010).

Specifically, the results of this study indicate that spirituality and family cohesiveness simultaneously played a substantial role and contributed 29.2% to a healthy lifestyle in the dimension of spiritual growth (R2 = 0.292; F(2,163) = 33.553; p 0.01). It reinforces the study findings of Steger (in George & Park, 2017), that the existence of spirituality enabled a person to build deeper transcendent relationships that assist him in discovering the goal of life, a hallmark of spiritual growth (Coulson, Strang, Mariño, & Minichiello, 2004). The existence of a sense of purpose in life might encourage adolescents to pursue a healthy lifestyle (Brownikoski & Brownikoska, in Brassai Brassai, Piko, & Steger, 2012).

 Table 3.

 Regression Test Results for Healthy Lifestyle Dimensions, Spirituality, and Family Cohesiveness

Variable	F	R2	Constant	b	t	p
Spiritual growth	33.553**	0.292	7.581			
Spirituality				0.362	5.113	0.000
Family cohesiveness				0.291	4.125	0.000
Interpersonal relations	18.166**	0.182	3.282			
Spirituality				0.204	2.685	0.008
Family cohesiveness				0.309	4.079	0.000
Health responsibility	5.327**	0.061	2.589			
Spirituality				0.111	1.371	0.172
Family cohesiveness				0.185	2.275	0.024
Physical activity	7.129**	0.080	2.092			
Spirituality				0.221	2.752	0.007
Family cohesiveness				0.115	1.429	0.155
Stress management	36.437**	0.309	1.761			
Spirituality				0.445	6.387	0.000
Family cohesiveness				0.209	3.004	0.003
Nutrition	9.430**	0.104	3.133			
Spirituality				0.319	4.012	0.000

*Note:* df = (2,163); \*p < 0.05, \*\*p < 0.01

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Spirituality and family cohesiveness contributed 18.2% to a healthy lifestyle in the dimension of interpersonal relations (R2 = 0.182; F = 18.166; p 0.01). According to Jordan et al. (2014), the presence of spirituality enables adolescents to create conflict-free beneficial interpersonal relations. Cohesive families can facilitate adolescents' good social interaction skills (Feldman et al., in Wentzel & McNamara, 1999) by modeling or internalizing patterns of everyday interaction within the family, where adolescents adopt supportive and sympathetic behavior as demonstrated by their cohesive family.

Moreover, this study unveiled that spirituality and family cohesiveness had an essential role and contributed 6.1% to a healthy lifestyle on the dimension of health responsibility (R2 = 0.061; F = 5.327; p 0.01). Referring to the notion of reasoned action (Brannon & Feist, 2008), how the surrounding environment's attitude toward health affects an individual's behavior to preserve health. Adolescents are more likely to engage in health-promoting behavior if those around them view such behavior as crucial (Ajzen & Fishbein, 1991). The family is one of the surroundings around adolescents that becomes a significant other and has a major impact on their lives (Batubara, 2010). Therefore, a cohesive family that encourages individuals to take responsibility for their health will motivate these early adolescents to engage in health-promoting behaviors. For instance, Park et al. (2009) reported that the more cohesive the family, the more obedient ill adolescents are to receive treatment. Regarding spirituality, religious individuals are more likely to participate in health-related actions than their less religious counterparts (Park et al., in Pandya, 2021). According to Wahyuningsih (2018), spirituality can be achieved through religion.

Spirituality and family cohesiveness simultaneously possessed a significant role and contributed 8% to a healthy lifestyle in terms of physical activity, according to the findings of this study (R2 = 0.080; F = 7.129; p 0.01). Malinakova et al. (2018) discovered that the higher a person's

spirituality, the greater his propensity to engage in physical activity. In contrast, adolescents who frequently participate in activities at places of worship engage in more physical activity than those who do not. In this instance, the cohesive family significantly encourages adolescents to engage in physical activity (Sallis et al., in Ornelas et al., 2007). For instance, families can ask their members to participate in physical activities or provide financial assistance to enable children to pursue sports (Sallis et al., in Ornelas et al., 2007).

Spirituality and family cohesiveness substantially influenced and contributed 30.9% to a healthy lifestyle in stress management (F(2, 163) = 36.437; p 0.01). Spirituality could assist individuals in managing stress by making them more patient, truthful, quiet, and serene in difficult times (Adyatma et al., 2019). A cohesive family can give adolescents emotional support and necessary knowledge, improving their mental health and reducing their stress levels while confronting challenging situations (Becklas et al., in Herke et al., 2020).

Moreover, spirituality alone contributed considerably to the nutritional dimension of a healthy lifestyle (R2 = 0.104; F(2, 163) = 9.430; p 0.01). It is consistent with the findings of (Marzband et al., 2016), reposting that a person's faith influenced the nutritional choices he made for his body. Individuals who subscribe to these spiritual ideals believe that their body is a gift from God, for which they must express gratitude by consuming healthy or nutritious foods. However, this study discovered no correlation between family cohesiveness and nutritional dimension. It could occur due to the early adolescent development period, where children interact more often with peers outside the house (Corkirs et al., 2016) and are susceptible to peer influence (Kurniawan & Sudrajat, 2018), especially concerning food preferences.

This study uncovered the influence of a personal factor (spirituality) and an environmental factor (family cohesiveness) on developing a healthy lifestyle among early adolescents who participated in this study. Thus, this study could provide a more holistic picture of a healthy lifestyle than prior studies, which tended to explore the significance of mainly personal or environmental factors. However, spirituality and family cohesiveness only contributed 6% to 30% to the healthy lifestyle dimensions of the participants. In other words, it is necessary to investigate additional aspects that can contribute more to the dimensions of a healthy lifestyle. Moreover, despite the acceptable reliability coefficient of the spirituality measuring instrument employed, the items in the measuring instrument must be reevaluated to adjust or simplify the language to assist early adolescents in understanding them better.

#### **CONCLUSION**

The results of this study revealed that spirituality and family cohesiveness played a major role in spiritual growth, interpersonal relations, health responsibility, physical activity, and stress management. Thus, both the personal factor (spirituality) and the microsystem environment (family) played an important part in the five dimensions of a healthy lifestyle. Thus, attempts to promote a healthy lifestyle among early adolescents could be implemented by combining personal and environmental variables instead of focusing on a single factor. Developing an early adolescent's spirituality is an effective strategy for promoting a healthy lifestyle. Creating a cohesive family environment through warm, friendly, and helpful relationships among family members is another method for achieving this goal.

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#### REFERENCES

- Açıkgöz Çepni, S., & Kitiş, Y. (2017). Relationship between healthy lifestyle behaviors and health locus of control and health-specific self-efficacy in university students. *Japan Journal of Nursing Science*, 14(3), 231–239. https://doi.org/10.1111/jjns.12154
- Adyatma, M. A., Murtaqib, M., & Setioputro, B. (2019). Hubungan Spiritualitas dengan Stres pada Penderita Hipertensi di Poli Jantung RSU dr. H. Koesnadi-Bondowoso. *Pustaka Kesehatan*, 7(2), 88. https://doi.org/10.19184/pk.v7i2.19120
- Alzahrani, S. H., Malik, A. A., Bashawri, J., Shaheen, S. A., Shaheen, M. M., Alsaib, A. A., Mubarak, M. A., Adam, Y. S., & Abdulwassi, H. K. (2019). Health-promoting lifestyle profile and associated factors among medical students in a Saudi university. *SAGE Open Medicine*, 7, https://doi.org/10.1177/2050312119838426
- Arundhana, A., Thaha, R., & Jafar, N. (2013). Aktivitas fisik dan asupan kalsium sebagai faktor risiko obesitas. *Buletin Gizi Kita DIY, 12*(2), 68–80.
- Arundhana, A. I., Hadi, H., & Madarina, J. (2013). Perilaku sedentari sebagai faktor risiko kejadian obesitas pada anak sekolah dasar di kota Yogyakarta dan kabupaten Bantul. *Jurnal Gizi Dan Dietetik Indonesia*, 1(2), 71–80. https://doi.org/http://dx.doi.org/10.21927/ijnd.2013.1(2).71-80
- Azwar, S. (2016). Konstruksi tes kemampuan kognitif. Pustaka Belajar.
- Batubara, J. R. L. (2010). Adolescent development (perkembangan remaja). *Sari Pediatri*, 12(1), 21–29. https://doi.org/http://dx.doi.org/10.14238/sp12.1.2010.21-9
- Berc, G., Kokorić, S. B., & Sertić, A. D. (2017). Strengthening family cohesion through shared participation of family members in religious activities in Croatia. *Journal of Religion and Spirituality in Social Work*, *36*(3), 326–345. https://doi.org/10.1080/15426432.2017.132 2931
- Berge, J. M., Wall, M., Larson, N., Loth, K. A., & Neumark-Sztainer, D. (2013). Family functioning: Associations with weight status, eating behaviors, and physical activity in adolescents. *Journal of Adolescent Health*, 52(3), 351–357. https://doi.org/10.1016/j.jadohealth.2012.07.006
- Bigman, G., Rajesh, V., Koehly, L. M., Strong, L. L., Oluyomi, A. O., Strom, S. S., & Wilkinson, A. V. (2015). Family cohesion and moderate-to-vigorous physical activity among Mexican Origin Adolescents: A longitudinal perspective. *Journal of Physical Activity and Health*, 12(7), 1023–1030. https://doi.org/10.1123/jpah.2014-0014
- Brassai, L., Piko, B. F., & Steger, M. F. (2012). Existential attitudes and Eastern European adolescents' problem and health behaviors: Highlighting the role of the search for meaning in life. *Psychological Record*, 62(4), 719–734. https://doi.org/10.1007/BF03395831
- Campos-Uscanga, Y., Morales-Ortiz, A. V., Argüelles-Nava, V. G., Ramírez-Chang, L. A., Zavaleta-

- Abad, R. A., & Rosas-Campos, R. (2018). Family cohesion and a father's warmth are related to the positive lifestyles of female university students. *Kontakt*, 20(2), 185–191. https://doi.org/10.1016/j.kontakt.2018.01.003
- Can, H. O., Ceber, E., Sogukpinar, N., Saydam, B. K., Otles, S., & Ozenturk, G. (2008). Eating habits, knowledge, about cancer prevention and the HPLP scale in Turkish. *Asian Pacific Journal of Cancer Prevention*, *9*, 569-574.
- Chamroonsawasdi, K., Phoolphoklang, S., Nanthamongkolchai, S., & Munsawaengsub, C. (2010). Factors influencing health promoting behaviors among the elderly under the universal coverage program, Buriram Province, Thailand. *Asia journal of public health*, 1(1), 15-19.
- Coulson, I., Strang, V., Mariño, R., & Minichiello, V. (2004). Knowledge and lifestyle behaviors of healthy older adults related to modifying the onset of vascular dementia. *Archives of Gerontology and Geriatrics*, 39(1), 43–58. https://doi.org/10.1016/j.archger.2003.12.006
- Damulira, C., Mukasa, M. N., Byansi, W., Nabunya, P., Kivumbi, A., Namatovu, P., Namuwonge, F., Dvalishvili, D., Sensoy Bahar, O., & Ssewamala, F. M. (2019). Examining the relationship of social support and family cohesion on ART adherence among HIV-positive adolescents in southern Uganda: baseline findings. *Vulnerable Children and Youth Studies*, 14(2), 181–190. https://doi.org/10.1080/17450128.2019.1576960
- Elam, K. K., Chassin, L., & Pandika, D. (2018). Polygenic risk, family cohesion, and adolescent aggression in Mexican American and European American families: Developmental pathways to alcohol use. *Development and Psychopathology, 30*(5), 1715–1728. https://doi.org/10.1017/S0954579418000901
- Franko, D. L., Thompson, D., Bauserman, R., Affenito, S. G., & Striegel-Moore, R. H. (2008). What's love got to do with it? Family cohesion and healthy eating behaviors in adolescent girls. *International Journal of Eating Disorders*, 41(4), 360–367. https://doi.org/10.1002/eat.20517
- Gamayanti, W. (2014). Usaha bunuh diri berdasarkan teori ekologi Bronfenbrenner. *Psympathic: Jurnal Ilmiah Psikologi, 1*(2), 204–230. https://doi.org/https://doi.org/10.15575/psy. v1i2.478
- George, L. S., & Park, C. L. (2017). Does spirituality confer meaning in life among heart failure patients and cancer survivors?. *Psychology of Religion and Spirituality, 9*(1), 131–136. https://doi.org/https://doi.org/10.1037/rel0000103
- Gerards, S. M. P. L., Hummel, K., Dagnelie, P. C., de Vries, N. K., & Kremers, S. P. J. (2013). Parental self-efficacy in childhood overweight: Validation of the Lifestyle Behavior Checklist in the Netherlands. *International Journal of Behavioral Nutrition and Physical Activity, 10*, 1–10. https://doi.org/10.1186/1479-5868-10-7
- Goleman, D. (2006). Social intelligence: The revolutionary new science of human relationships. Bantam Books.
- Good, M., & Willoughby, T. (2008). Adolescence as a sensitive period for spiritual development. *Child Development Perspectives*, 2(1), 32–37. https://doi.org/10.1111/j.1750-8606.2008.00038.x

- Herawati, N., & Herlambang, S. M. (2019). Peran dukungan keluarga dan keharmonisan perkawinan orang tua dalam pendidikan spiritual anak. *Wacana*, 11(2), 213–221.
- Herke, M., Knöchelmann, A., & Richter, M. (2020). Health and well-being of adolescents in different family structures in germany and the importance of family climate. *International Journal of Environmental Research and Public Health*, 17(18), 1–12. https://doi.org/10.3390/ijerph17186470
- Hoare, E., Milton, K., Foster, C., & Allender, S. (2016). The associations between sedentary behaviour and mental health among adolescents: A systematic review. *International Journal of Behavioral Nutrition and Physical Activity, 13*(1). https://doi.org/10.1186/s12966-016-0432-4
- Institute, F. (1999). Multidimensional measurement of religiousness/spirituality for use in health research. retrieved from: https://fetzer.org/resources/multidimensional-measurement-religiousnessspirituality-use-health-research
- Jordan, K. D., Masters, K. S., Hooker, S. A., Ruiz, J. M., & Smith, T. W. (2014). An interpersonal approach to religiousness and spirituality: Implications for health and well-being. *Journal of Personality, 82*(5), 418–431. https://doi.org/10.1111/jopy.12072
- Kesehatan, B. L. K. (2018). Laporan hasil riset kesehatan dasar. retrieved from: https://www.litbang.kemkes.go.id/laporan-riset-kesehatan-dasar-riskesdas/
- Kim, Y. (2011). Adolescents' health behaviours and its associations with psychological variables. *Cent Eur J Public Health*, 19(4), 205–209. https://doi.org/10.21101/cejph.a3694
- Kim, Y. P., Kim, S., & Joh, J. Y. (2015). Family adaptability and cohesion in families consisting of Asian immigrant women living in South Korea: A 3-year longitudinal study. *Asia-Pacific Psychiatry*, 7(2), 206–214. https://doi.org/10.1111/appy.12028
- Kurniawan, Y., & Sudrajat, A. (2018). Peran teman sebaya dalam pembentukan karakter siswa Madrasah Tsanawiyah. *SOCIA: Jurnal Ilmu-Ilmu Sosial, 15*(2), 149–163. https://doi.org/https://doi.org/10.21831/socia.v15i2.22674.
- Lestari, S. (2012). *Psikologi keluarga: Penanaman nilai dan penanganan konflik dalam keluarga.* Kencana Prenada Media Group.
- Loprinzi, P. D., Cardinal, B. J., Loprinzi, K. L., & Lee, H. (2012). Benefits and environmental determinants of physical activity in children and adolescents. *Obesity Facts*, *5*(4), 597–610. https://doi.org/10.1159/000342684
- Malinakova, K., Geckova, A. M., Van Dijk, J. P., Kalman, M., Tavel, P., & Reijneveld, S. A. (2018). Adolescent religious attendance and spirituality—Are they associated with leisure-time choices? *PLoS ONE*, *13*(6), 1–14. https://doi.org/10.1371/journal.pone.0198314
- Marzband, R., Hosseini, S. H., & Hamzehgardeshi, Z. (2016). A concept analysis of spiritual care based on Islamic sources. *Religions*, 7(6), 1–11. https://doi.org/10.3390/rel7060061
- Mishra, S. K., Togneri, E., Tripathi, B., & Trikamji, B. (2017). Spirituality and Religiosity and Its Role in Health and Diseases. *Journal of Religion and Health*, 56(4), 1282–1301. https://doi.

- org/10.1007/s10943-015-0100-z
- Oman, D., & Lukoff, D. (2018). Mental Health, Religion, and Spirituality. Why Religion and Spirituality Matter for Public Health, 225–243. https://doi.org/10.1007/978-3-319-73966-3\_13
- Ornelas, I. J., Perreira, K. M., & Ayala, G. X. (2007). Parental influences on adolescent physical activity: A longitudinal study. *International Journal of Behavioral Nutrition and Physical Activity*, 4, 1–10. https://doi.org/10.1186/1479-5868-4-3
- Pandya, S. P. (2021). Spirituality-Based Counseling Improves Family Relationships and Quality of Life among Cohabiting South Asian Mothers-in-Law and Daughters-in-Law. *American Journal of Family Therapy, 49*(4), 323–343. https://doi.org/10.1080/01926187.2020.1813 658
- Ping, W., Cao, W., Tan, H., Guo, C., Dou, Z., & Yang, J. (2018). Health protective behavior scale: Development and psychometric evaluation. *PLoS ONE*, *13*(1), 1–12. https://doi.org/10.1371/journal.pone.0190390
- PLISHKA, P. C. (1980). Handbook of Adolescent Psychology. *American Journal of Psychiatry,* 137(11), 1479–1479. https://doi.org/10.1176/ajp.137.11.1479
- Pramudhita, S. R., & Nadhiroh, S. R. (2017). Gambaran aktivitas sedentari dan tingkat kecukupan gizi pada remaja gizi lebih dan gizi normal. *Media Gizi Indonesia*, 12(1), 1–6. https://doi.org/https://doi.org/10.20473/mgi.v12i1.1-6
- Rosa, E. M., & Tudge, J. (2013). Urie Bronfenbrenner's Theory of Human Development: Its Evolution From Ecology to Bioecology. *Journal of Family Theory & Review, 5*(4), 243–258. https://doi.org/10.1111/jftr.12022
- Santos, S., Crespo, C., Canavarro, M. C., & Kazak, A. E. (2015). Family Rituals and Quality of Life in Children with Cancer and Their Parents: The Role of Family Cohesion and Hope. *Journal of Pediatric Psychology, 40*(7), 664–671. https://doi.org/10.1093/jpepsy/jsv013
- Sarafino, E. P., & Smith, T. W. (2012). *Health psychology: biopsychosocial interactions (7th ed.)*. John Wiley & Sons.
- Soviyati, E., & Nurjannah, S. (2019). Hubungan pengetahuan makanan cepat saji (fast food) dengan kejadian dismenorhoe pada siswi kelas VII di SMPN 2 Jalaksana, kecamatan Jalaksana, kabupaten Kuningan, tahun 2018. *Jurnal Ilmu Kesehatan Bhakti Husada, 10*(1), 28–33. https://doi.org/https://doi.org/10.34305/jikbh.v10i1.80
- Tey, S. E., Park, M. S. A., & Golden, K. J. (2018). Religiosity and Healthy Lifestyle Behaviours in Malaysian Muslims: The Mediating Role of Subjective Well-Being and Self-Regulation. *Journal of Religion and Health*, *57*(6), 2050–2065. https://doi.org/10.1007/s10943-017-0420-2
- Tomljenovic, H., & Bubic, A. (2021). Cognitive and emotional factors in health behaviour: Dual-process reasoning, cognitive styles and optimism as predictors of healthy lifestyle, healthy behaviours and medical adherence. *Current Psychology, 40*(7), 3256–3264. https://doi.org/10.1007/s12144-019-00268-z

- Alleyne, R., & Thinganjana, W. (2006). Spirituality and Stress Management in Healthy Adults. *Journal of Holistic Nursing*, 24(4), 245–253. https://doi.org/10.1177/0898010106289842
- Vedanthan, R., Bansilal, S., Soto, A. V., Kovacic, J. C., Latina, J., Jaslow, R., Santana, M., Gorga, E., Kasarskis, A., Hajjar, R., Schadt, E. E., Björkegren, J. L., Fayad, Z. A., & Fuster, V. (2016). Family-Based Approaches to Cardiovascular Health Promotion. *Journal of the American College of Cardiology*, 67(14), 1725–1737. https://doi.org/10.1016/j.jacc.2016.01.036
- Wahyuningsih, S. (2018). Promoting children's spiritual intelligence and personality development. *Jurnal Penelitian*, 15(2), 189–201. https://doi.org/https://doi.org/10.28918/jupe. v15i2.1652
- Walker, S.N., & Hill-Polerecky, D. M. (1996). *Psychometric evaluation of the Health Promoting Lifestyle Profile II*. Unpublished manuscript, University of Nebraska Medical Center.
- Walker, S N; Sechrist, K R; Pender, N. J. (1987). The Health-Promoting Lifestyle Profile: development a d psychometric characteristics. *Nursing Research*, 36(2), 76-81. http://dx.doi.org/10.1097/00006199-198703000-00002
- Wentzel, K. R., & McNamara, C. C. (1999). Interpersonal relationships, emotional distress, and prosocial behavior in middle school. *Journal of Early Adolescence*, 19(1), 114–125. https://doi.org/10.1177/0272431699019001006