SCIENTIFIC CULTURE
www.sci-cult.com

SCIENTIFIC CULTURE, Vol. 12, No. 2.1, (2026), pp. 11744-11756
Open Access. Online & Print

DOI: 10.5281/zenodo.20239616

INDIVIDUAL, FAMILY AND ENVIRONMENTAL FACTORS RELATED TO YOUNG PEOPLE'S PERCEIVED FUTURE READINESS IN INDONESIA

Laili Rahayuwati[1*], Rahmadewi[2], Rindang Ekawati[3], Sri Lilestina Nasution[4], Habsyah Saparidah Agustina[5], Syahmida Syahbuddin Arsyad[6], Muhammad Dawam[7], Vira Amelia[8], Dani Saputra[9] and Ria Valerie Cabanes[10]

[1]Department of Community Nursing, Faculty of Nursing, Universitas Padjadjaran, Bandung, West Java, Indonesia, Email: laili.rahayuwati@unpad.ac.id Orcid ID: 0000-0002-2732-3534
[2]Research Center for Population, National Research and Innovation Agency, Jakarta, Indonesia, Email: rahm057@brin.go.id Orcid ID: 0009-0000-7336-8189
[3]Research Center for Population, National Research and Innovation Agency, Jakarta, Indonesia, Email: rindang.eka1@gmail.com Orcid ID: 0000-0003-0737-9175
[4]Research Center for Population, National Research and Innovation Agency, Jakarta, Indonesia, Email: sril003@brin.go.id Orcid ID: 0000-0002-4265-4366
[5]Department of Nursing Subang State Polytechnic, Subang, West Java, Indonesia, Email: habsyah.rida@gmail.com Orcid ID: 0000-0002-8289-425X
[6]Research Center for Population, National Research and Innovation Agency, Jakarta, Indonesia, Email: syah025@brin.go.id Orcid ID: 0009-0002-6663-501X
[7]Research Center for Population, National Research and Innovation Agency, Jakarta, Indonesia, Email: naufal_azmi2000@yahoo.com Orcid ID: 0000-0002-1705-4449
[8]Faculty of Nursing, Universitas Padjadjaran, Bandung, West Java, Indonesia & Professional Nursing Program, Stikes Bhakti Mulia, Kediri, East Java, Indonesia, Email: vira17004@mail.unpad.ac.id Orcid ID: 0000-0002-2050-1115
[9]Research Center for Population, National Research and Innovation Agency, Jakarta, Indonesia, Email: dani015@brin.go.id Orcid ID: 0009-0000-7982-5926
[10]Faculty of Management and Development Studies, University of the Philippines Open University, Los Baños, Laguna, Philippines, Email: riavalerie.cabanes@upou.edu.ph Orcid ID: 0000-0001-5668-2651

Received: 07/02/2026
Accepted: 08/04/2026

Corresponding Author: Laili Rahayuwati (laili.rahayuwati@unpad.ac.id)

ABSTRACT

Indonesia is experiencing a demographic transition with a large young population, creating opportunities and challenges for future national development. Adolescence and young adulthood are critical periods for identity formation, decision-making, and preparation for adult roles. However, exposure to risky behaviors, limited health literacy, and unequal family and environmental support may affect young people's readiness for the future. This study aimed to explore the relationship between individual, family, and environmental factors and perceived future readiness among young people in Indonesia. This quantitative research used secondary data

from the Program Performance and Accountability Survey. Data were analyzed using descriptive, bivariate, and multivariate analyses with logistic regression. The results showed that the individual factors associated with young people's perceived future readiness are age group, education, and young people's reproductive health knowledge. Family factors associated with young people's future readiness include parental employment status, economic status, parental exposure to reproductive health information, and the implementation of family roles. The environmental factors associated with young people's future readiness are the residential area, the source of reproductive health information, and population information through mass media. individual, family, and environmental factors significantly shape young people's perceived future readiness in Indonesia. The implementation of family roles is the most influential factor, underscoring the importance of strengthening family involvement to support adolescents' preparation for the future.

KEYWORDS: Family; Perceived Future Readiness; Reproductive Health; Young People.

1. INTRODUCTION

According to the 2020 Population Census results, Indonesia's population is 270.20 million, up 32.56 million from the 2010 Population Census. Among this population, almost 70 million people are aged 10-24 years, and approximately 46 million are aged 15-24 years (BPS, 2020). Population projection results show that the young people population will increase until 2030 and subsequently decrease(BPS, Kementerian PPN, & Bappenas, 2018). Adolescence is a social, psychological, economic, and biological transition for many young people, one that is emotionally challenging and involves important choices (Adioetomo & Pardede, 2022). Young people are exposed to behavior that risks their health, including smoking, drug consumption, and unsafe sex. As such, the impact will affect young people's current conditions and future outcomes, including dropping out of school and poor health status. In line with that, understanding their perceived future readiness.

The 2017 Indonesian Demographic and Health Survey (IDHS) youth module results indicate that 3.7% of all teenagers between the ages of 15 and 24 engage in sexual behavior (2% of females and 8% of males)(Statistics Indonesia, 2018). This percentage increase compared to the previous IDHS-Adolescent in 2012 (2%)(BKKBN, 2013). Meanwhile, the percentages from the 2019 Program Performance and Accountability Survey (PPAS) are 2% for male young people and 1% for female young people (BKKBN & BPS, 2019). However, there has been a change in the age at which most people have sexual intercourse for the first time, namely from 18-19 years old in the 2012 IDHS to 17-18 years old in the 2017 IDHS (BPS, 2017). Concern is that this may affect young people's physical, psychological, and social well-being. Loss of educational opportunity can significantly affect their ability to secure stable employment and achieve economic independence (Bengesai, Khan, & Dube, 2018). These factors are key indicators of young people's readiness for a successful transition into adulthood. This study's update combines two data sets, young people and families, to produce more thorough findings. Many factors influence young people's perceived future readiness here, grouped into family, adolescence, and the environment.

Young people's future readiness is conceptualized as a multidimensional construct shaped by the interaction of cognitive, behavioral, and psychosocial processes within specific socio-cultural contexts. Drawing on international literature, this construct is informed by the concept of future orientation, which emphasizes goal-setting, planning, and evaluation of future outcomes, as well as the theory of emerging adulthood, which highlights identity exploration and life uncertainty during the transition to adulthood (Arnett, 2000; Evans, 2007; Nurmi, 1989). In addition, adolescent development theory underscores the importance of identity formation and the ongoing maturation of cognitive and self-regulatory capacities (Erikson, 1968).

In this study, perceived future readiness refers to young people's self-assessment of their preparedness to navigate future life challenges. It encompasses multiple domains, including health behavior, social and economic preparation, and psychosocial well-being. While conceptually informed by established frameworks, this construct is an adapted, context-specific operationalization tailored to the Indonesian setting and the use of secondary data.

This research aims to explore the relationship between: (1) individual factors (characteristics, knowledge of reproductive health (knowledge of the fertile period, knowledge of the best age to marry, knowledge of HIV/STIs, knowledge of drug), and sexual behaviour); (2) family factors (family characteristics, family knowledge, implementation of family functions); and (3) environmental factors (area of residence, exposure to reproductive health information through the media, exposure to population information through the media) on the Perceived Future Readiness of young people.

2. METHOD

2.1. Research Design

This research employed a quantitative approach using secondary data from the National Population and Family Planning Board (BKKBN).

2.2. Setting And Samples

The target population for this survey is households, women of childbearing age 15-49 years, families, and unmarried young people aged 10-24 years. According to the World Health Organization (WHO), 'Adolescents' are individuals aged 10–19 years, 'Youth' are those aged 15–24 years, and 'Young People' refers to the broader group aged 10–24 years. This study adopted the term 'young people' to encompass adolescents and youth, acknowledging the extended transition to adulthood that is increasingly recognized in public health literature. The sampling design for this survey was a stratified multistage sampling. The first-stage sampling frame was a list of villages/sub-districts in Indonesia, with information on urban/rural classification. Apart from the city/village classification, the sample frame

is also considered when determining the wealth index classification. The second-stage sampling frame was a list of clusters within the selected villages. The third-stage sample frame is either a list of households or the results of listing households in the selected cluster. The sampling design and data processing were carried out by BPS, with data collection using the Mobile Collection (MOCO) application by enumerators from universities across 34 provinces.

The unit of analysis in this study was unmarried young men and women aged 10-24 years who have lived with family for the last six months and are registered as family members in the selected households. Teenage sampling was first determined based on selected clusters from 514 districts/cities across 34 provinces. The total sample was determined using the probability proportionate to size (PPS) sampling method, determining 35 households from each cluster. Then, of the 67725 selected households, 67594 were found, and 67370 households were successfully interviewed. The young people who were successfully interviewed and became the sample for this study were 41582 weighted young people.

2.3. Measurement And Data Collection

This research used a quantitative approach, drawing on secondary data from the National Population and Family Planning Board (BKKBN) Program Performance and Accountability Survey, using the Youth Questionnaire Module and the Family Questionnaire Module. Data collection carried out door-to-door by the enumerator.

The dependent variable in this research was young people's perceived future readiness, a composite of several components, including maintaining physical health, avoiding sexual behavior, preparing financially, building networks, maintaining mental and spiritual health, and others. Measurement for each component of a young person's perceived future readiness uses the formula: sum the answers for each component, with Yes = 1 and No = 0.

Then, the scoring results from each variable are added up to form a total score, which is transformed into a score for the level of readiness for the future of young people by calculating the following:

$$Level\ of\ Future\ Readiness\ = \frac{Total\ score\ -\ minimum\ score}{maximum\ score\ -\ minimum\ score} x100$$

The perceived readiness level for young people's future ranges from 0 to 100. A value of 0 indicates the lowest perceived future readiness among young people, and a value of 100 indicates the highest. The perceived future readiness of young people is grouped into two categories based on composite scores, namely the high category (score ≥60) and the low category (score <60).

2.4. Variables

The independent variables in this research consist of individual, family, and environmental factors. Individual young people's factors include young people's characteristics (age, gender, and education level), their reproductive health knowledge (knowledge of fertile periods, the best age for marriage, HIV/STI, and drug use), and their sexual behavior. Family factors include the characteristics of the head of the family (level of education, economic status, work status, and family structure), family knowledge (exposure to reproductive health information), and the implementation of family roles (reproductive, economic, social, and educational). Environmental factors in this study include area of residence, exposure to reproductive factors, and population health information through the media.

Young people's risk behavior in this study is assessed based on local norms, respondents' engagement in various forms of dating and sexual activities, including holding hands, hugging, kissing on the lips, touching, sexual stimulation, and sexual intercourse. Young people are categorized as engaging in risky sexual behavior if they report participating in at least one of the following: touching, sexual stimulation, or sexual intercourse. While behaviors such as holding hands and hugging are sometimes viewed as expressions of affection, in the Indonesian cultural context, where norms around premarital intimacy are generally conservative, even these forms of physical contact may be perceived as early indicators of potential engagement in riskier sexual behaviors [13]. In Indonesia, marital status and religion are important social attributes, with sex being culturally and legally restricted to marriage. Therefore, although not all forms of dating behavior are inherently risky, their inclusion is culturally justified in anticipating progression toward higher-risk sexual activity.

The dependent variable in this study was adolescents' future-oriented behavioral readiness, operationalized through six behavioral dimensions: maintaining physical health through exercise, preparing economic capabilities, avoiding risky sexual behavior, maintaining mental and spiritual well-being, socializing, and other preparatory behaviors such as developing skills and

competencies, managing time, and preparing for future careers. Respondents' behaviors were assessed based on their self-reported engagement in these dimensions. The total score was then used to classify adolescents' level of future readiness behavior according to the predefined scoring criteria.

2.5. Data Analysis

Data were processed and analyzed using the statistical software. Data analysis used descriptive statistics, bivariate analysis used the Chi-Square test, and multivariate analysis used a binary logistic regression model. Each variable selected ($p < 0.05$) will be included in a multivariate analysis to identify factors influencing young people's Perceived Future Readiness, using Adjusted Odds Ratio (AOR) values with 95 percent confidence intervals (CIs), with significance $p < 0.05$.

2.6. Ethical Considerations

This study was performed in accordance with the principles of the Declaration of Helsinki. The Research Ethics Committee of the National Population and Family Planning Board (BKKBN) granted ethical approval for the Program Performance and Accountability Survey (PPAS) under ethical clearance number 454/LB.02/H4/2019. Given the sensitive nature of the topics discussed—sexual behavior and future readiness—and the inclusion of participants aged 10–14 years, special ethical considerations were applied to ensure that the research adhered to child protection standards and that informed consent was obtained from both parents and guardians. In addition, the study followed strict protocols to safeguard the privacy and well-being of younger participants. Prior to data collection, young people provided informed assent with their parents' permission.

3. RESULTS

3.1. Young People's Perceived Future Readiness

Table 1 shows the level of young people's readiness for the future. Overall, young people still lack preparation for the future. Only 18.2% of young people have prepared well for their future. Based on several aspects of behavior in preparing for young people's future, maintaining physical health/exercising and preparing economic capabilities are the behavioral aspects most often carried out by young people, with percentages of 78.6% and 54.6%, respectively. Young people are still relatively low in future readiness in the behavioral aspects of avoiding sexual behavior (34.8%), maintaining spiritual mental (30.2%), socializing (21.7%), and other areas such as preparing skills and competencies, managing time, and preparing for a future career (8.5%; Table 1).

Table 1: Behavioural Aspects of Future Readiness.

Variable	N	%
Behavioural Aspects		
Maintain physical health/exercise	32683	78.6
Preparing economic capabilities	22704	54.6
Avoid sexual behaviour	14471	34.8
Maintain mental spirituality	12558	30.2
Socialize	9023	21.7
Other (Preparing skills and competencies, managing time and preparing future career)	3534	8.5
Level of The Perceived of future readiness		
Good perceived of future readiness	7565	18.02
Low perceived of future readiness	34017	81.08

3.2. Young People's Individual Factors On The Perceived Future Readiness

The analysis showed that all examined characteristics were significantly associated with young people's perceived future readiness ($p < 0.05$). Most respondents were aged 10–19 years (83.5%) and more than half were male (53.0%). In terms of education, the largest proportion had higher education (41.8%). Most young people had poor knowledge of the fertile period (94.4%), while more than half had good knowledge of marital preparation (52.8%). The majority had poor knowledge of HIV/STIs (68.7%), but most reported good knowledge of drugs (85.7%). In addition, most respondents had not engaged in sexual activity (87.2%). These findings indicate that sociodemographic characteristics, reproductive health knowledge, and sexual behavior are all significantly associated with young people's perceptions of future readiness (Table 2).

Table 2: Individual Factors of Young People's Perceived Future Readiness.

Variable	Total of Young people (41582)		Young people' Perceived of future readiness				*p-value*
			Good		Poor		
	N	%	N	%	N	%	
Characteristics of Young people							
Age group							
10-19	34735	83.5	5732	16.5	29003	83.5	0.000
20-24	6847	16.5	1839	26.9	5008	73.1	
Gender							
Male	22046	53.0	3889	17.6	18157	82.4	0.001
Female	19536	47.0	3682	18.8	15854	81.2	
Education							
Low education	11422	27.5	1102	9.6	10320	90.4	
Middle education	12798	30.8	2055	16.1	10743	83.9	0.000
Higher education	17362	41.8	4414	25.4	12948	74.6	
Knowledge of Young People Reproduction Health							
Knowledge of the Fertile Period							
Poor	39248	94.4	6802	17.3	32446	82.7	0.001
Good	2334	5.6	769	32.9	1565	67.1	
Knowledge of married preparation							
Poor	19635	47.2	2394	12.2	17241	87.8	0.000
Good	21947	52.8	5177	23.6	16770	76.4	
Knowledge of HIV/STIs							
Poor	28550	68.7	3779	13.2	24771	86.8	0.000
Good	13032	31.3	3792	29.1	9240	70.9	
Knowledge of Drug							
Poor	5952	14.3	468	7.9	5484	92.1	0.000
Good	35630	85.7	7103	19.9	28527	80.1	
Young People's Sexual Behaviour							
No	36266	87.2	6130	16.9	30136	83.1	0.000
Yes	5316	12.8	1441	27.1	3875	72.9	

3.3. Family Factors On The Level Of Future-Readiness

The analysis revealed that family factors were significantly associated with young people's perceived future readiness ($p < 0.05$). Most respondents had parents with low education (41.0%) or higher education (39.6%); parental education was significantly associated with future readiness. Most parents were working (94.5%), and working status was significantly associated. Regarding economic status, most respondents came from intermediate families (45.7%), with significant differences observed across groups. Most respondents lived in nuclear families (90.0%), and family structure was also significantly related to future readiness. However, the difference between nuclear and broken families was less pronounced than other factors. In addition, the majority of parents had been exposed to reproductive health information (79.3%), which was significantly associated with readiness. The implementation of family roles was good (79.7%; Table 3).

Table 3: Family Factor of Young People's Perceived Future Readiness.

Variable	Total of Young people		Young people' Perceived of future readiness				*p-value*
			Good		Poor		
	N	%	N	%	N	%	
Parental Education							
Low education	17068	41.0	2793	16.4	14275	83.6	0.000
Middle education	8029	19.3	1400	17.4	6629	82.6	
Higher education	16485	39.6	3378	20.5	13107	79.5	
Parental Working Status							
Not working	2301	5.5	506	22.0	1795	78.0	0.000
Working	39281	94.5	7065	18.0	32216	82.0	
Economic Status							
Lower	12193	29.3	1876	15.4	10317	84.6	0.000
Intermediate	19023	45.7	3530	18.6	15493	81.4	
High	10366	24.9	2165	20.9	8201	79.1	
Family Structure							
Nuclear Family	37442	90.0	6763	18.1	30679	81.9	0.021

Broken Family	4140	10.0	808	19.5	3332	80.5	
Parental exposure to reproductive health information							
No	8624	20.7	930	10.8	7694	89.2	0.000
Yes	32958	79.3	6641	20.1	26317	79.9	
Implementation of family roles							
Low	8448	20.3	181	2.1	8267	97.9	0.000
Good	33134	79.7	7390	22.3	25744	77.7	

3.4. Environmental Factors On Future Preparedness

The analysis showed that environmental factors were significantly associated with young people's perceived future readiness ($p < 0.05$). More than half of the respondents lived in rural areas (54.9%), and most had health information through mass media (79.4%). Similarly, most respondents obtained population-related information through mass media (85.6%; Table 4).

Table 4: Environmental Factors of Young People's Perceived Future Readiness.

Variable	Total of Young people		Young people' Perceived of future readiness				*p-value*
			Good		Poor		
	N	%	N	%	N	%	
Residential Area							
Urban	18752	45.1	3839	20.5	14913	79.5	0.000
Rural	22830	54.9	3732	16.3	19098	83.7	
Source of reproduction health information through mass media							
No	8568	20.6	771	9.0	7797	91.0	0.000
Yes	33014	79.4	6800	20.6	26214	79.4	
Source of population information through mass media							
No	5996	14.4	413	6.9	5583	93.1	0.000
Yes	35586	85.6	7158	20.1	28428	79.9	

3.5. Factors That Influence Young People's Perceived Future Readiness.

The multivariate analysis (Model II) demonstrated that several individual, family, and environmental factors remained significantly associated with young people's perceived future readiness after adjustment. At the individual factors, being older (20–24 years), higher education, and better knowledge of reproductive health (fertile period, marital preparation, HIV/STI, and drugs) were positively associated with readiness. The family factors, parental working status, economic status, parental exposure to reproductive health information, and especially good family role implementation showed strong associations, with family role implementation being the most influential factor (AOR = 10.690; 95% CI: 9.262–12.338). Among the environmental factors, rural residence, exposure to reproductive health information through mass media, and exposure to population information through mass media also showed significant positive associations. In contrast, gender, sexual behavior, parental education, and family structure were not significant in the final model (Table 5).

Table 5: Associated Factors of Young People's Perceived Future Readiness.

	Model I		Model II	
	AOR (95% CI)	*p-value*	AOR (95% CI)	*p-value*
Individual Factor				
Characteristic of Young people Age group				
10-19	1	0.000	1	
20-24	1.872 (1.765 -1.985)	0.000	1.214 (1.135 -1.300)	0.000
Gender				
Man	1			
Woman	1.050 (1.000 -1.102)	0.052		
Young people Education				

Low Education	1		1	
Middle education	1.725 (1.600 – 1.860)	0.000	1.320 (1.220 – 1.430)	0.000
Higher education	2.940 (2.745 – 3.148)	0.000	1.536 (1.414 – 1.669)	0.000
Knowledge of Young people Reproduction Health				
Knowledge of the Fertile Period				
Poor	1		1	
Good	2.475 (2.254 -2.718)	0.000	1.566 (1.416 -1.731)	0.000
Knowledge of married preparation				
Poor	1		1	
Good	1.930 (1.834 -2.031)	0.000	1.217 (1.150 -1.288)	0.000
Knowledge of HIV/STIs				
Poor	1		1	
Good	2.790 (2.653 – 2.933)	0.000	1.767 (1.662 – 1.878)	0.000
Knowledge of Drug				
Poor	1		1	
Good	3.436 (3.091 – 3.820)	0.000	1.485 (1.321 – 1.669)	0.000
Young people Sexual Behavior				
No	1			
Yes	1.708 (1.596 – 1.828)	0.042		
Family Factor				
Parental Education				
Low education	1			
Middle education	0.940 (0.879 – 1.006)	0.074		
Higher education	1.092 (1.035 – 1.153)	0.001		
Parental Working Status				
Not working	1.416 (1.284 - 1.562)	0.000	1.200 (1.079 – 1.333)	0.000
Working	1		1	
Economic Status				
Lower	0.927 (0.864 – 0.995)	0.035	1.406 (1.297 – 1.525)	0.000
Intermediate	1.012 (0.955 – 1.072)	0.692	1.211 (1.137 – 1.289)	0.000
High	1		1	
Family Structure				
Nuclear Family	1			
Broken Family	1.095 (1.011 – 1.185)	0.027		
Parental exposure to reproductive health information				
No	1		1	
Yes	2.181 (2.020 – 2.356)	0.000	1.520 (1.399 – 1.653)	0.000
Implementation of family roles				
Low	1		1	
Good	11.786 (10.228 – 13.581)	0.000	10.690 (9.262 -12.338)	0.000
Environmental factor				
Residential Area				
Urban	1		1	
Rural	0.873 (0.831 – 0.917)	0.000	1.118 (1.056 – 1.183)	0.000
Source of reproduction health information through mass media				
No	1		1	
Yes	2.977 (2.735 – 3.240)	0.000	1.515 (1.377 – 1.668)	0.000
Source of population information through mass media				
No	1		1	
Yes	3.570 (3.192 – 3.993)	0.000	1.827 (1.617 – 2.064)	0.000

4. DISCUSSION

The results show that youth aged 20-24 are more likely to have better future readiness than those aged 15-19. This finding can be interpreted through developmental theory, suggesting that cognitive maturation and goal-setting capacity improve with age, leading to more structured future orientation among older youth. In early adolescence (ages 12 to 14), self-regulation tends to decrease, then increases during middle adolescence and into adulthood (Atherton, 2020). This pattern reflects the ongoing development of executive functions, which may explain why younger adolescents are more vulnerable to impulsive and risk-taking behaviors. This occurs due to prioritizing goals and theories

about young people's sexual behavior (Wesarg-Menzel et al., 2023). From a theoretical perspective, goal prioritization becomes more stable as adolescents transition into early adulthood, allowing them to align their behaviors with long-term aspirations (Yau, Shane, & Heckhausen, 2021). Young people who experience a decline in self-control in their early teens may be more likely to engage in this dangerous behavior. Adolescence is the starting point for many sexual behaviors, including drug use and misuse, violence, vandalism, taking risks with sexual activity, and delinquency (Murray, Hafetz Mirman, Carter, & Eisner, 2021; Smith, Steinberg, & Chein, 2014).

Based on these results, young people from unemployed parents and those with low economic status tend to be more prepared for their future than those with working parents and those with higher economic status. For adolescents in economically risky environments, high parental expectations can sometimes negatively affect persistence, especially when they have low expectations for their future social status(Zhang, Yang, & Xu, 2024). This suggests that individuals from lower socioeconomic backgrounds might adopt a more realistic and determined approach to their future, driven by the need to improve their circumstances. In addition, young people whose families are exposed to information about young people's reproductive health have a higher probability of being prepared for a good future. These results align with previous research, which has shown a significant relationship between young people's reproductive health behaviors and access to information (Saparini, Simbolon, & Ningsih, 2023). Teenagers who lack information may be more inclined to engage in harmful behavior and less prepared for the future (Murdiningsih, Rohaya, Hindun, & Ocktariyana, 2020).

Family factors in implementing family roles are dominant in shaping young people into young people with good personality values. Families, especially parents, can make themselves role models who can be used as examples, and parents can accompany and provide motivation to their teenage children and commit to their behavior so that their young people have a good future. Parents who use authoritarian parenting with teenage girls will positively affect their daily lives and help them become achievers (Nurlela, Nurhasanah, & Agung, 2023). Meanwhile, parents who practice democracy foster open-mindedness in their young people and help them make the right decisions for their future. In contrast to previous research, the results of their study provide an overview and development of young people's potential, based on the concept of future orientation, for those who have just reached the motivation stage (Rubiyanti, Agustiani, & Jatnika, 2023). This indicates that while young people may have clear aspirations, the transition from motivation to planning remains a critical gap. For example, the various kinds of potential young people have in entrepreneurship end at the planning stage. Young people already have interests and goals related to their future orientation in the motivation stage. However, many of them still need to determine the sub-goals of their main goal and have yet to prepare a plan to achieve them.

Research on the role of the family and young people's reproductive health, with the future orientation of young people, explains that young people's abuse (drug use, alcohol) occurs due to a lack of parental supervision and minimal instillation of religious values, so that the surrounding environment easily influences young people. The role of parents is important in shaping young people's personalities and determining their future (Masud & Astutik, 2022). The formation of a young people's identity is closely related to the future of the young person themselves. The research results show that parenting style, friendship quality, and support contribute to commitment. This also shows that the formation of young people's identity in Indonesia adheres to a collective culture(Muttaqin, Chanafi, Nofelia, Khristi, & Wahyuningsih, 2022).

The results of this study found that young people from families exposed to information about young people's reproductive health were more likely to be prepared for a good future than those from families not exposed to such information. Besides information on young people's reproductive health from parents, media campaigns about health, including via radio and TV, play an important role in reproductive health behavior (Solehati, Rahmat, & Kosasih, 2019). This shift highlights the need to critically evaluate the quality and credibility of digital information, as not all online content supports positive behavioral outcomes. However, in the current digital era, social media has emerged as a dominant source of information among young people, influencing their attitudes and decisions regarding reproductive health (Burns et al., 2020). Good information about young people's reproductive health is hoped to equip young people with a healthy lifestyle, prevent risky sexual behavior, and encourage family communication about young people's reproductive health (Diarsvitri & Utomo, 2022). Furthermore, other research found that there is a positive

correlation between the quality of communication within the family and young people's independence, life satisfaction and perceived future readiness (Bi & Wang, 2021).

However, environmental factors outside the family also play a role in shaping young people's commitment to their future. Environmental factors, such as residential area, impact future readiness. Rural young people's residential preferences are linked to their academic achievements, future educational plans, and perceptions of local job opportunities. These preferences influence where they live and where they pursue higher education after high school (Kirkpatrick Johnson, Elder, & Stern, 2005). In addition, sources of reproductive health information through mass media also impact adolescents perceived future readiness. Exposure to the internet and print media can trigger behavioral changes that reduce teenage pregnancy (Sserwanja, Sepenu, Mwamba, & Mukunya, 2022). Social media-based interventions have shown significant improvements in adolescents' reproductive health knowledge, which may enhance their capacity to make informed decisions and prepare for a healthier and more stable future (Cilubai & Maheswari, 2024). According to Betty Neuman's Systems Model, the environment plays a crucial role in influencing an individual's response to stressors (Meleis, 2011). Environmental factors—including physical, social, and cultural conditions—act as external stressors that can either strengthen or weaken an adolescent's line of defense. Supportive environments, such as access to education, health information, and community support, promote adaptive responses and enhance adolescents' readiness for the future. In contrast, adverse environments may increase vulnerability and hinder personal growth.

These findings have important implications for policy and practice. Interventions to improve young people's future readiness should adopt a multisectoral approach by addressing individual, family, and environmental factors. Schools should strengthen life-skills education, including reproductive health literacy, career planning, and healthy lifestyle promotion, particularly among young people with lower educational backgrounds. Families should also be supported through parenting education programs that enhance communication, access to health information, and effective family role implementation. In addition, policymakers and healthcare providers should improve equitable access to health and population information through digital and community-based programs, particularly for young people living in rural areas, to better support their preparation for future educational, social, and family roles. This study primarily relied on secondary data, which may limit the ability to capture the full range of relevant factors influencing reproductive health behavior. Second, the absence of formal psychometric validation indicates that the constructed index should be interpreted as a composite indicator reflecting socio-normative, cultural, value-based, and behavioral dimensions, rather than as a standardized psychological measurement instrument. Third, because the items do not represent a unified, validated scale, the use of conventional psychometric tests, such as Cronbach's alpha for internal consistency, may not be fully appropriate for this data structure. Additionally, several important variables that could influence the research context were not included, such as social media exposure, mental health status, and peer relationships. These factors play a significant role in shaping reproductive health behaviors, and their omission represents a limitation of this study. Future research is recommended to incorporate primary data collection and include these variables to provide a more comprehensive understanding of the determinants of reproductive health among young people.

5. CONCLUSION

The findings of this study indicate that young people who report higher levels of perceived future readiness tend to be older (20–24 years), female, have higher levels of education, and possess better knowledge of reproductive health, including knowledge of the fertile period, marital preparation, HIV/STIs, and drugs. In addition, higher perceived readiness is associated with avoiding risky sexual behaviors, living in families with well-implemented family roles, having parental exposure to reproductive health information, and accessing reproductive and population-related information through mass media. However, these findings should be interpreted with caution, as the cross-sectional design of this study does not allow for causal inferences but rather identifies significant associations between variables. In the context of nursing practice, these results suggest that interventions focusing on improving reproductive health knowledge, strengthening family roles, and promoting supportive informational environments may be relevant in supporting adolescents' development. Nurses may play an important role in empowering both young people and their families through education and community-based programs. In nursing education, the findings highlight the

importance of integrating adolescent and family health promotion into curricula to better prepare nurses for community engagement. From a policy perspective, strategies that encourage family and community involvement, improve access to accurate reproductive health information, and address broader socioeconomic contexts may help enhance young people's perceived readiness for the future.

REFERENCES

Adioetomo, S. M., & Pardede, E. L. (2022). Older Persons in Indonesia: Sources of Income and Social Protection. In *Handbook of Aging, Health and Public Policy: Perspectives from Asia* (pp. 1–16). Springer.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469–480. https://doi.org/10.1037/0003-066X.55.5.469

Atherton, O. E. (2020). Typical and atypical self-regulation in adolescence: the importance of studying change over time. *Social and Personality Psychology Compass*, *14*(1). https://doi.org/10.1111/spc3.12514

Bengesai, A. V., Khan, H. T. A., & Dube, R. (2018). Effect of Early Sexual Debut on High School Completion In South Africa. *Journal of Biosocial Science*, *50*(1), 124–143. https://doi.org/10.1017/S0021932017000104

Bi, X., & Wang, S. (2021). Parent-Adolescent Communication Quality and Life Satisfaction: The Mediating Roles of Autonomy and Future Orientation. *Psychology Research and Behavior Management*, *Volume 14*, 1091–1099. https://doi.org/10.2147/PRBM.S317389

BKKBN. (2013). Survei demografi dan kesehatan Indonesia, 2012. In *(No Title)*. Jakarta: BKKBN.

BKKBN, & BPS. (2019). *Survei kinerja dan akuntabilitas program KKBPK (SKAP) keluarga Tahun 2019*. Jakarta: Badan Kependudukan dan Keluarga Berencana Nasional.

BPS. (2017). Survei Demografi dan Kesehatan indonesia. In *Jakarta: Badan Kependudukan dan Keluarga Berencana Nasional*. Jakarta: Badan Kependudukan dan Keluarga Berencana Nasional.

BPS. (2020). Hasil Sensus Penduduk (SP2020) pada September 2020 mencatat jumlah penduduk sebesar 270, 20 juta jiwa.

BPS, Kementerian PPN, & Bappenas. (2018). Proyeksi Penduduk Indonesia 2015-2045 Hasil SUPAS 2015. *Badan Pusat Statistik*.

Burns, J., Johnstone, K., Chavanduka, T., Jamison, C., Pena, V., Stephenson, R., & Darbes, L. (2020). Evaluation of the Sexual Health Behaviors of Black Male Adolescents and Young Adults Through Social Media Platforms: Web-Based Survey Study. *JMIR Public Health and Surveillance*, *6*(3), e19219. https://doi.org/10.2196/19219

Cilubai, J., & Maheswari, U. (2024). Comparative analysis of social media-based interventions for adolescent reproductive health education. *African Journal of Reproductive Health*, *28*(3), 81–91. https://doi.org/10.29063/ajrh2024/v28i3.9

Diarsvitri, W., & Utomo, I. D. (2022). Medical perspective of reproductive health education in Indonesian schoolbooks. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.943429

Erikson, E. H. (1968). *Identity: Youth and crisis* (Vol. 68). Norton.

Evans, K. (2007). Concepts of bounded agency in education, work, and the personal lives of young adults. *International Journal of Psychology*, *42*(2), 85–93.

Kirkpatrick Johnson, M., Elder, G. H., & Stern, M. (2005). Attachments to Family and Community and the Young Adult Transition of Rural Youth. *Journal of Research on Adolescence*, *15*(1), 99–125. https://doi.org/10.1111/j.1532-7795.2005.00088.x

Masud, A., & Astutik, A. P. (2022). The Role of Parents in Educating Adolescents in Sidoarjo Regency. *Indonesian Journal of Cultural and Community Development*, *11*, 10–21070.

Meleis, A. I. (2011). *Theoretical nursing: Development and progress* (Vol. 86). Lippincott Williams & Wilkins.

Murdiningsih, M., Rohaya, R., Hindun, S., & Ocktariyana, O. (2020). The effect of adolescent reproductive health education on premarital sexual behavior. *International Journal of Public Health Science (IJPHS)*, *9*(4), 327. https://doi.org/10.11591/ijphs.v9i4.20444

Murray, A. L., Hafetz Mirman, J., Carter, L., & Eisner, M. (2021). Individual and developmental differences in delinquency: Can they be explained by adolescent risk-taking models? *Developmental Review*, *62*, 100985. https://doi.org/10.1016/j.dr.2021.100985

Muttaqin, D., Chanafi, A. R., Nofelia, B. I. A., Khristi, T. C., & Wahyuningsih, S. (2022). Role of Parents and Friends in Adolescents' Identity Formation in Indonesia. *Indigenous: Jurnal Ilmiah Psikologi*, *7*(1), 1–14.

Nurlela, Nurhasanah, E. H., & Agung. (2023). The Influence of Parent Parenting Patterns on Adolescent Association. *International Journal of Education and Humanities*, *3*(2), 178–186.

https://doi.org/10.58557/(ijeh).v3i2.150
Nurmi, J. (1989). Development of Orientation to the Future during Early Adolescence: A Four-Year Longitudinal Study and Two Cross-Sectional Comparisons, International Journal of Psychology. *International Journal of Psychology*, *24*(1–5), 195–214. https://doi.org/10.1080/00207594.1989.10600042
Rubiyanti, Y., Agustiani, H., & Jatnika, R. (2023). Exploration and Education on the Importance of Future Orientation Among Adolescents in the Foothills of Mount Haruman, Cimaung Subdistrict, Bandung Regency. *Sinar Sang Surya: Jurnal Pusat Pengabdian Kepada Masyarakat*, *7*(1), 1–9.
Saparini, S., Simbolon, D., & Ningsih, L. (2023). Knowledge and Access to Adolescent Reproductive Health Information in Indonesia. *Jurnal Promosi Kesehatan Indonesia*, *19*(1), 1–10. https://doi.org/10.14710/jpki.19.1.1-10
Smith, A. R., Steinberg, L., & Chein, J. (2014). The Role of the Anterior Insula in Adolescent Decision Making. *Developmental Neuroscience*, *36*(3–4), 196–209. https://doi.org/10.1159/000358918
Solehati, T., Rahmat, A., & Kosasih, C. E. (2019). Relation of Media on Adolescents' Reproductive Health Attitude and Behaviour. *Jurnal Penelitian Komunikasi Dan Opini Publik*, *23*(1). https://doi.org/10.33299/jpkop.23.1.1768
Sopacua, D. T., Sari, C. W. M., Agustina, H. S., Irza, D., & Rahayuwati, L. (2023). Factors related to sexual behavior among adolescents. *Jurnal Keperawatan Padjadjaran*, *11*(3), 184–191. https://doi.org/10.24198/jkp.v11i3.2327
Sserwanja, Q., Sepenu, A. S., Mwamba, D., & Mukunya, D. (2022). Access to mass media and teenage pregnancy among adolescents in Zambia: a national cross-sectional survey. *BMJ Open*, *12*(6), e052684. https://doi.org/10.1136/bmjopen-2021-052684
Statistics Indonesia. (2018). Indonesia Demographic and Health Survey. In *(No Title)*. Jakarta: Statistic Indonesia.
Wesarg-Menzel, C., Ebbes, R., Hensums, M., Wagemaker, E., Zaharieva, M. S., Staaks, J. P. C., … Wiers, R. W. (2023). Development and socialization of self-regulation from infancy to adolescence: A meta-review differentiating between self-regulatory abilities, goals, and motivation. *Developmental Review*, *69*, 101090. https://doi.org/10.1016/j.dr.2023.101090
Yau, P. S., Shane, J., & Heckhausen, J. (2021). Developmental goals during the transition to young adulthood. *International Journal of Behavioral Development*, *45*(6), 475–483. https://doi.org/10.1177/01650254211007564
Zhang, F., Yang, R., & Xu, X. (2024). Expected Future Subjective Social Status Moderates the Relations between Perceived Parental Expectation and Persistence among Chinese Rural Adolescents. *Behavioral Sciences*, *14*(8), 722. https://doi.org/10.3390/bs14080722

Author Contributions: L.R. conceived and designed the study. Conceptualization, L.R., R., and R.E.; methodology, L.R., R.E., and V.A.; software, V.A. and D.S.; validation, L.R., R., R.E., and R.V.C.; formal analysis, V.A., M.D., and D.S.; investigation, L.R., R., S.L.N., H.S.A., and S.S.A.; resources, L.R. and R.; data curation, V.A., M.D., and D.S.; writing—original draft preparation, L.R. and V.A.; writing—review and editing, R., R.E., S.L.N., H.S.A., S.S.A., and R.V.C.; visualization, V.A. and D.S.; supervision, L.R., R., and R.E.; project administration, L.R.; funding acquisition, R.,R.E., and S.L.N All authors have read and agreed to the published version of the manuscript.

Acknowledgements: This research was funded by the National Research and Innovation Agency (BRIN), through the Research Center for Population, under the Rumah Program "*Keindonesiaan dan Dinamika Kontemporer*" 2024, in accordance with Decree Number 7/III.7/HK/2024 issued by the Head of the Research Organization for Social Sciences and Humanities.