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Citation metrics

- **2.772 (2020)** Impact Factor
- **Q2 (2020)** Impact Factor Best Quartile
- **2.992 (2020)** 5 year IF
- **3.5 (2020)** CiteScore (Scopus)
- **Q1 (2020)** CiteScore Best Quartile

Speed/acceptance

- **0** days avg. from submission to final decision
- **96** days avg. from submission to final post-review decision

- **1.062 (2020)** SNIP
- **0.662 (2020)** SJR

- **15** days avg. from acceptance to online publication
- **8%** acceptance rate

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- **5 Year Impact Factor*:** the average number of citations received by articles in the journal within a five-year window.
- **CiteScore (Scopus)†:** the average number of citations received by articles in the journal over a four-year period.
- **CiteScore Best Quartile†:** the journal's highest CiteScore ranking in a Scopus subject category. Q1 = 25% of journals with the highest CiteScores.
- **SNIP (Source Normalized Impact per Paper):** the number of citations per paper in the journal, divided by citation potential in the field.
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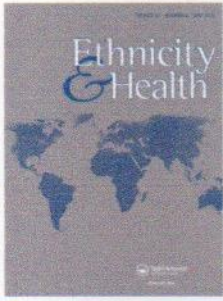
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- **From acceptance to online publication:** the average (median) number of days from acceptance of a manuscript to online publication of the Version of Record. Based on articles published in the last calendar year.
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An explorative study of beliefs in two groups of community health promoters of adolescent reproductive health in Indonesia: informed by theory of planned behavior

Nurlaela Widyarini, Sofia Retnowati & Diana Setiyawati

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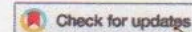
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An explorative study of beliefs in two groups of community health promoters of adolescent reproductive health in Indonesia: informed by theory of planned behavior

Nurlaela Widyarini ^{a,b}, Sofia Retnowati ^b and Diana Setiyawati ^b

^aFaculty of Psychology, University of Muhammadiyah Jember, Indonesia; ^bFaculty of Psychology, Universitas Gadjah Mada, Indonesia

ABSTRACT

Objective: To explore beliefs in specific social context and potential individual-level behavioral strategies used by two groups of community health promoters to foster their participation of promoting ARH.

Design: Two phases of formative studies based on the Theory of Planned Behavior (TPB) was conducted with community health promoters in the integrated service center (*pos pelayanan terpadu/posyandu*), *posyandu* cadres and peer educators of three villages in Tengger, East Java, Indonesia.

Result: The phase one, conducted with *posyandu* cadres ($n = 20$) and peer educators ($n = 21$). A survey using open-ended questions and focus group discussion was carry out to elicit accessible behavioral (advantages and disadvantages), normative (references of who have significant roles for promoters) and control (personal or situational factors) beliefs related to ARH promotion. The content analysis, elicited 15 salient beliefs for *posyandu* cadre and 21 for the peer educators. In phase two, the participants who previously participated in phase 1 (*posyandu* cadres ($n = 14$ and peer educators ($n = 21$))), completed two questionnaires to measure the belief strength and evaluation of the beliefs.

Conclusions: The result showed that each group has different characteristic in the strength of their beliefs in promoting reproductive health. The findings highlight the social context underlying beliefs associated with ARH promotion and opportunities to enhance engagement with the different groups of community health promoters.

ARTICLE HISTORY

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KEYWORDS

Adolescent's reproductive health; *Tengger*; community health promoters; theory of planned behavior

Introduction

Improvement of maternal health during childbirth and the reduction of infant mortality are among two of the sustainable development goals (SDGs) associated with reproductive health (Brassil 2018; WHO 2017). Indonesia faces the problem of having a considerably high maternal mortality rate at 359 per 100,000 live births, which previously was successfully reduced from 390 per 100,000 live births (1991) to 228 per 100,000 live births (2007)

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This article has been corrected with minor changes. These changes do not impact the academic content of the article.

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(Statistic Indonesia, Ministry of Health Indonesia, and Macro International USA 2007). Also, the infant mortality rate (IMR) remains high at 32 per 1,000 live births (UNPFA 2010; Vogel et al. 2015; WHO 2014).

The high rate of adolescent marriage in Probolinggo Regency, east Java, Indonesia has been a growing concern. Based on the 2008–2012 national economic survey of Indonesia (*Susenas*) and the 2010 population census, the prevalence of marriage for women aged 15–19 years old at Probolinggo Regency reached 35%, which was higher than the national prevalence of 20% (Statistics Indonesia 2015). Underage marriage is a concerning issue given its impact on elevating the risk for maternal and child mortality. In Probolinggo Regency, the maternal and child mortality rate is among the three highest in East Java Province (East Java Health Department 2015; Laksmiarti, Rachmawati, and Angkasawati 2013).

Tengger tribe and adolescent reproductive health program

The *Tengger* tribe resides at Mount Bromo, East Java, which is located at an altitude of 650–1800 meters above sea level. *Tenggerese* people hold certain values as the foundations of their lives, including for activities of promoting adolescent reproductive health. These values are among others *gotong royong* (communal work), *mewejang* (advising each other), *ngilangke bala sengkalan* (omitting any possible bad things to happen), *kualat/karma* (taking consequences for what have been done), holding the custom, and controlling behavior. They still adhere firmly to cultural traditions in the practice of everyday life. Elite organizations and structures of the ethnic still function actively within their community. The ethnic elites and village government have their respective roles and work together in developing programs that reduce the rate of adolescent marriage. Sexual abstinence becomes a part of *Tengger* values that need to be maintained so that the people are very attentive to customary ceremonies related to the puberty period as a way to explain the importance of sexual abstinence capacity.

Adolescent marriage had contributed to the problems of reproductive health in *Tengger*, especially before 2011. As an effort to suppress the rate of adolescent marriage, the villages have launched a 12-year compulsory learning program. It is the requirement for *Tenggerese* people to comply before getting married. These means that a marriage can take place if each of a couple has finished high school or its equal learning program. Although this rule is not written, but has become their customary law.

The existence of adolescent *posyandu* is very important because it provides easy access and flexible time of service. Its role and function are more effective with the participation of its cadres and peer educators from the local community. Each village follow their respective schedule of *posyandu* implementation (once every 1–3 months). Becoming a promoter is not their primary job because these *posyandu* cadres are mostly housewives who are also daily farmers. Farming starts from morning to noon, working on chores as a mother, such as caring for children, preparing food, and cleaning the house. Peer educators are teenagers who are students of junior and senior high school and their participation in adolescent *posyandu* is voluntary. Each village has its regular time to carry out the adolescent health examinations. Some villages choose Sunday mornings and others that choose a weekday afternoon.

Many studies suggested that the presence of community health promoters can support implementation of health program, operating between health systems and community (Rajaraman et al. 2012; South et al. 2013, 2019; World Health Organization 2015). As reproductive health promoters, *posyandu* cadres and peer educators work voluntarily in the *Tengger* community. Several obstacles identified in the preliminary interviews were time limitations, psychological barriers, and limited knowledge of ARH. Considering the essential role they played in conveying reproductive health knowledge to adolescents, their willingness to help voluntarily was a strong foundation for sustainability. For these reasons, it is important to recognize what is believed to support and hinder promoters from carrying out reproductive health promotion, which in turn will be very useful for adolescent reproductive health promoters in determining appropriate interventions.

Exploring beliefs in promoting ARH

The limited utilization of theoretical foundation and evidence-based of the development of program for adolescent reproductive health promoters is a problems. It is understandable, given that behavior change is a complex process and is primarily determined by the socio-cultural context of the local community (Marcus and Cunningham 2016; Rankin et al. 2016; Sood, Shefner-Rogers, and Skinner 2014; WHO 2010). Clearly, socio-cultural aspect potentially influenced the beliefs people hold. Previous research showed people who living in countries that are more collectivist (e.g. many Asian countries) are generally more oriented toward their social context, conform to social norms and social influences (van de Bongardt et al. 2014; Vauclair et al. 2011). The ability to recognize the socio-cultural context of local communities is the key to success in tailoring programs to the community needs (Avery et al. 2013).

One of the restraining factors of an effective intervention program is the limited use of theory-based planning (Marcus and Cunningham 2016; Rankin et al. 2016; Sood, Shefner-Rogers, and Skinner 2014; WHO 2010). Several constraints in ARH programs are sustainability, adolescent empowerment (Menna, Ali, and Worku 2015), and unpredictable behavioral changes (Rashid and Mwale 2016). In contrast, a systematic review study showed that intervention programs developed based on theories resulted in a stronger effect (Avery et al. 2013).

Among existing theories, one that can be utilized as an underlying theory to develop an intervention program as well as to predict behavior changes is the theory of planned behavior (TPB) developed by Icek Ajzen (Ajzen 1985, 1991, 2005, 2001, 2002). The basic assumption of TPB is that belief is the cognitive basis for attitude, subjective norm, and perceived behavioral control, and it also serves as the cognitive basis for intention and behavior. TPB identifies and explains the complex relationship between attitude, subjective norm and perceived behavioral control, as well as intention and behavior itself (Ajzen 2005; Ajzen and Klobas 2013; Cromby 2012; de Leeuw, Valois, and Seixas 2014; Li, Frieze, and Tang 2010).

TPB has been widely applied as it provides systematic and detailed instructions how to conduct research from salient beliefs elicitation, instrument development, intervention, to program evaluation (Araujo-Soares et al. 2013; Billari, Philipov, and Testa 2009). A meta-analysis study on TPB revealed that attitude, subjective norm and perceived behavioral control are the determinants for intention (Da Silva et al. 2018; Rich et al. 2015). The

implementation of TPB to elicit beliefs related to ARH-promoting behavior in specific social context is critical and should be done before program development (Araujo-Soares et al. 2013; Epton et al. 2015; Schueller and Kroener 2017; Zoellner et al. 2012). However, only a limited number of studies conducted an exploration of TPB-based belief in different community groups.

Working with community means working with a wide variety of characteristics, among which is age. Previous studies have provided some evidence regarding the role of age differences in human's intentions and behaviors. Several studies showed that age determines one's intentions (Dommermuth, Klobas, and Lappegard 2011; Ilo et al. 2018; Saunders-Goldson and Edwards 2004). A meta-analysis study showed that age plays a significant role in behavior (Huang et al. 2017). However, other studies also showed that education were more important than age in in forming behaviors (Ingersoll et al. 2018).

Based on the above elaboration, this study aimed to explore and compare the underlying beliefs in *posyandu* cadres and peer educators in promoting ARH. According to TPB, salient beliefs might explain why health promoters engage or not engage in ARH promotion. The salient beliefs are activated spontaneously without much cognitive effort in the actual or symbolic presence of the attitude object. This study explored advantages and disadvantages (behavioral beliefs), people who would approve or disapprove (normative beliefs) and the factors they believe would enable them to perform as well as the factors that are likely to impede performance (control beliefs) related to ARH promotion. Are there differences between the two groups? If there are, what underlies the differences? An illustration of the two groups' underlying social context beliefs can be used as a basis to develop an intervention that increases their intention to promote adolescent reproductive health.

This study aimed to systematically elicit and categorize a broad range of specific salient beliefs that might explain the intention *posyandu* cadres and peer educators to engage or not engage in promoting ARH. The *Tenggerese* people who resides at the Probolinggo Regency, has two groups of volunteers who deliver ARH promotion. The first group is *posyandu* cadres, who are mostly housewives, and the second group is peer educators, who are adolescents and high school students. The two groups collaboratively carry out ARH promotion activities in the community. Variation in age has been a challenge for community empowerment efforts. Studies revealed different results on how age plays a role in the study of intention and behavior. Age has been proven a factor in determining the timing of fertility intention (Dommermuth, Klobas, and Lappegard 2011) as well as breastfeeding intention (Saunders-Goldson and Edwards 2004). It also significantly predicts the intention not to practice female genital mutilation (Ilo et al. 2018). According to a meta-analysis study, age significantly elevates the risk of suicide attempt but not to suicide ideation or death by suicide (Huang et al. 2017). Study on community facilitators's intention to involve parents in the intervention for children with autistic spectrum provided evidence that the level of education is the factor which, compared to other demographics, significantly contributes more to the intention of involving parents in the intervention (Ingersoll et al. 2018). On the other hand, several other studies on the relations of age and intention showed mixed results.

Materials and methods

We adapted the TPB formative research stages. In the first phase, we explored participants' beliefs in their behavior in promoting ARH. In the second phase, we identified the strength of those beliefs. This study took place in three villages in Sukapura sub-district, namely Ngadisari, Wonotoro, and Jetak. These villages were selected based on the criteria as follows: (1) still holding customary ceremonies as parts of adolescent productive health promotion, (2) having a strong customary structure. The participants were *posyandu* cadres and peer educators promoting reproductive health to the *Tengger* people, represented by three villages in Sukapura sub-district.

The participants' involvement in this study was voluntary by the codes of ethics of the Research Committee of the Faculty of Psychology – Gadjah Mada University (No, 1461/SD/PL.03.01/IV/2018). This study had clarified such as the transparency of the research process, possible risks, confidentiality of information, and freedom to withdraw from the research at any time to the subjects before the execution.

Phase 1: eliciting salient beliefs

Materials and methods

Participants were 20 *Posyandu* cadres (females; mean age = 34 years old, SD = 8.75) and 21 peer educators (mean age = 14.14 years old, SD = 1.74). Participants were recruited through purposive sampling and through head of *posyandu* referral from three villages in the Sukapura Sub-district. Their willingness to participate had been stated with their informed consent. The number of the participants from each village was different; Ngadisari Village with 6 *posyandu* cadres and 7 peer educators, Wonotoro Village with 8 *posyandu* cadres and 7 peer educators, and Jetak Village with 6 *posyandu* cadres and 7 peer educators. Data was collected using opened-ended questions. We provided a worksheet and asked participants to identify the set of accessible behavioral (advantages and disadvantages), normative (references of who have significant roles for promoters) and control (personal or situational factors) beliefs related to promoting ARH. Focus group discussions were conducted for detailed participant's viewpoints related to beliefs in ARH promotion (Ajzen 1985, 2005, 2001). The complete list of questions can be seen in Table 1. The data collection in phase 1 was done in each village and it took a month.

Results

Content analysis was carried out to analyze participants' answers. Responses are organized by grouping together beliefs that refer to similar outcomes and counting the

Table 1. Open-ended questions to elicit modal salient beliefs in promoting ARH.

No	Aspects	Questions
1	Behavioral beliefs	What do you believe would be the advantages of promoting ARH? What do you believe would be the disadvantages of promoting ARH?
2	Normative beliefs	Which individuals or groups of people would approve of you promoting ARH? Which individuals or groups of people would disapprove of you promoting ARH?
3	Control beliefs	What factors or circumstances would make you more likely to engage in the promotion of ARH? What factors or circumstances would make you less likely to engage in the promotion of ARH?

frequency with each outcome was listed. Fifteen beliefs were identified from the group of *posyandu* cadres. Of those beliefs, five were behavioral (e.g. increasing knowledge and skills in promoting ARH), three were normative (e.g. village and health officers, *Posyandu* cadres), and seven were control beliefs (e.g. nearby venue for ARH promotion activities, availability of funding and fixed activity schedule). Regarding the group of peer educators, twenty-one strong beliefs in promoting ARH behavior were discovered. Five of them were behavioral beliefs (e.g. increasing knowledge and self-confidence in promoting ARH), five were normative beliefs (e.g. teachers and health officers) and ten were control beliefs (e.g. friends asking for help on ARH issues, availability of media to promote ARH, care, and concern from peers in the ARH organization) (see column 2 on Tables 2–4). These beliefs were then used in Phase 2 to identify the strength of beliefs.

Based on Table 2, it can be seen that the two groups shared the same beliefs in acquiring advantages. Both groups believe that promoting adolescent reproductive health can increase their knowledge and skills. On the other hand, the two groups have differences related to experience of promoting the issue. This was affected by the relationship with adolescents.

Phase 2: identification of belief strength

Materials and methods

In phase 2, the number of participants remained 35, consisting of 14 *Posyandu* cadres (female; mean age = 34 years old, SD = 8.75) and 21 peer educators (mean age = 14.14 years old, SD = 1.74). The 14 *posyandu* cadres were 3 from Ngadisari, 7 from Wonotoro, and 4 from Jetak, and the 7 peer educators from each of the villages continued the process. 6 *posyandu* cadres were not able to continue because they could not leave their daily activities. Two questionnaires were used for each participant group. The first questionnaire was a seven-point (1) to (7) unipolar scale to measure the strength of behavioral, normative, and control beliefs. There were 15 items for *Posyandu* cadres

Table 2. Mean and standard deviation for behavioral belief strength, outcome evaluation and attitude.

No	Result to be obtained after conducting ARH promotional activities	Behavioral Belief strength (b)		Outcome evaluation (e)		Attitude (bx)	
		M	SD	M	SD	M	SD
<i>Peer educators</i>							
1	Increased knowledge of ARH	6.38	1.07	2.62	0.92	17.43	6.51
2	Feeling happy	5.48	1.29	2.05	1.12	11.90	7.15
3	Increased skills in delivering ARH materials	5.43	1.57	2.14	1.11	12.71	7.25
4	Increased self-confidence	5.71	1.23	1.76	0.94	10.43	6.75
5	Get ridiculed and teased by friends	5.29	1.87	-1.10	1.89	-7.48	9.17
6	Feeling shy	5.29	1.76	-0.76	1.64	-4.05	9.78
<i>Posyandu cadres</i>							
1	Increased knowledge of ARH	5.86	1.29	2.86	0.36	16.71	4.36
2	Increased self-confidence to deliver ARH materials	6.00	0.55	2.57	0.51	15.43	3.50
3	Increased skills in delivering ARH materials	5.64	1.28	2.57	0.51	14.29	3.93
4	Housework routine was interrupted	5.43	1.45	-2.29	0.73	-12.86	6.05
5	The audience would not listen	4.86	1.61	-2.43	0.85	-11.71	6.14

Table 3. Mean and standard deviation for normative belief, motivation to comply and multiplication of normative belief and motivation to comply.

No	Determining referents in promoting ARH	Normative belief (n)		Motivation to comply (m)		Subjective Norm (nxm)	
		M	SD	M	SD	M	SD
Peer educators							
1	The management board of the ARH organization	5.76	1.73	1.95	1.07	11.90	7.02
2	Teachers	6.19	1.44	1.38	1.36	8.71	9.29
3	Medical health officers	6.43	0.98	2.10	1.22	14.10	7.56
4	Family	5.81	1.33	1.62	1.16	10.33	7.49
5	Teammates in the ARH organization	5.81	1.12	1.67	1.24	10.29	7.75
Posyandu cadres							
1	Midwives	6.79	0.43	2.79	0.43	19.07	3.83
2	An existing institution in the village, i.e. Program Supervision Institution (LPP) and Community Welfare (Kesra)	6.93	0.27	2.43	0.51	16.86	3.76
3	Other Posyandu cadres	6.93	0.27	2.79	0.43	19.36	3.30

and 21 items for peer educators. They were asked to rate on the seven-point scale their likelihood of obtaining stated outcomes (behavioral belief strength; i.e. *by promoting ARH, my knowledge on ARH will [(1) less likely to (7) very likely] increase*), to what extent they thought specific referents would approve or disapprove their engagement in the ARH promotion activities (normative belief strength; i.e. *village's midwife is [(1) less supporting to (7) very supportive of me] in promoting ARH*), and to what extent they thought different factors would influence their behavior in promoting ARH (control belief strength; i.e. *a venue for ARH promotion close to my home is [(1) not available to (7) available]*).

The second questionnaire was a seven-point bipolar scale that ranged from (-3) to (3) to measure outcome evaluation, motivation to comply, and power. There were 15 items

Table 4. Mean and standard deviation for control belief, power and multiplication of control belief and power.

No	Situations related to ARH promotion	Control belief		Power		Perceived behavioral control	
		M	SD	M	SD	M	SD
Peer educators							
1	When friends ask for help in addressing ARH issues	5.33	1.65	1.38	1.50	8.52	7.90
2	ARH promotion as an assignment from a teacher	4.90	1.61	1.43	1.29	7.76	8.18
3	Availability of media to deliver ARH materials	5.57	1.69	1.71	1.23	10.33	8.54
4	Care and concern from fellow teammates in the ARH organization	5.24	1.41	1.76	0.94	9.62	6.56
5	Activity programs of the ARH organization	4.86	1.53	1.43	1.33	7.38	8.17
6	ARH promotional activity collided with school academic activities	4.24	1.92	1.00	1.64	3.24	8.59
7	Difficulty obtaining permission to conduct ARH promotion	3.62	2.16	-1.05	1.75	-4.24	7.80
8	Feeling embarrassed when talking about ARH	3.86	1.59	-0.10	1.64	-0.48	6.90
9	Plenty of school assignments	4.29	1.85	-0.19	1.81	-0.57	8.61
10	Lack of confidence in their communication skills	3.57	1.75	-0.24	1.79	-0.43	6.07
Posyandu cadres							
1	ARH promotion venue close to home	6.86	0.36	3.29	1.07	22.57	7.68
2	Activity programs of adolescent health service (<i>Posyandu Remaja</i>)	6.21	1.05	2.93	0.27	18.14	3.30
3	Availability of funding for promotional activities	6.33	0.52	2.83	0.41	18.00	3.29
4	Availability of media to deliver ARH materials	4.36	2.59	2.64	0.50	11.36	7.45
5	Fixed activity schedule	6.64	0.84	2.93	0.27	19.43	2.95
6	Sufficient time	5.57	1.40	2.79	0.43	15.64	5.03
7	Training opportunities	3.21	2.01	2.86	0.36	9.07	5.89

for *Posyandu* cadres and 21 items for peer educators. Participants were asked to evaluate the outcomes concerning the ARH promotion (outcome evaluation; i.e. *increasing knowledge in ARH is [(-3) less important to (3) very important]*), how far they will follow and comply with the referents regarding ARH promotion (motivation to comply; i.e. *I [(-3) would not join to (+3) would join] the village's midwife when she asks me to promote ARH*) and to what extent they thought different factors would influence their behavior (power: i.e. *it would be [(-3) difficult to (+3) would be easier] for me to promote ARH when the venue is near my home*). The next step was to calculate the scores obtained for each category (i.e. attitude, subjective norm, and perceived behavioral control). The data collection was done in each village and it took a month.

Result

Table 2 presents the mean and standard deviation for the advantages and disadvantages of the ARH promotion (behavioral beliefs), evaluation on the possibilities of acquiring those advantages and disadvantages (outcome evaluation), and hypothetical calculation of participants' attitude towards them. The result showed that for peer educators, the strongest belief was that there would be an increase of knowledge on ARH ($M = 6.38$, $SD = 1.07$). Increased knowledge would likely be acquired ($M = 2.62$, $SD = 0.92$); thus, they demonstrated a positive attitude towards it ($M = 17.43$, $SD = 6.51$). Although increased self-confidence was believed to be one of the advantages, the evaluation was not as strong ($M = 1.76$, $SD = 0.94$) as feeling happy ($M = 2.05$, $SD = 1.12$) and increased skills in ARH materials delivery ($M = 2.14$, $SD = 1.11$). At the same time, although mockery ($M = 5.29$, $SD = 1.87$) and shyness ($M = 5.29$, $SD = 1.76$) were somewhat strongly acknowledged as the disadvantages, they were evaluated as a minor possibility hence their attitude showed an inclination towards the negative.

Similar to the peer educators, the *posyandu* cadres believed that increased self-confidence ($M = 6.00$, $SD = 0.55$) and knowledge ($M = 5.86$, $SD = 1.29$) were the advantages they would gain for conducting ARH promotion. The unique finding in this group was that even though they acknowledged that their housework routine would be interrupted ($M = 5.43$, $SD = 1.45$) and the adolescent would be less likely to listen to them ($M = 4.86$, $SD = 1.61$), they estimated that those occasions would unlikely to happen.

Table 3 demonstrates the participants' beliefs of which referent has the strongest influence on their engagement in ARH promotion activities (normative belief), to what degree they comply to the referent (motivation to comply), and their subjective norm. The result showed that for peer educators, health officers were the most significant referents they conformed to in terms of delivering ARH promotion ($M = 6.43$, $SD = 0.98$). Although teachers were the supporting referent for their ARH promotion, they considered the officers of the ARH organization ($M = 1.95$, $SD = 1.07$) played a more significant role in encouraging them to participate in this cause than their teachers ($M = 6.43$, $SD = 0.98$). It was also seen in their high compliance with teammates in the organization ($M = 1.67$, $SD = 1.24$).

For *Posyandu* cadres, the three referents were equally strong in determining their call to action. Nevertheless, midwives ($M = 2.79$, $SD = 0.43$) and fellow cadres ($M = 2.79$, $SD = 0.43$) were the ones they would likely comply to rather than any existing institutions in the village ($M = 2.43$, $SD = 0.51$). Table 4 presents the mean and SD for contributing and negating factors of ARH promotion (control belief), the degree to which they could take

an advantage out of the contributing factors or the strains to overcome the negating factors (power) and hypothetical calculation on their control of those factors. The result showed that for peer educators, the availability of media ($M = 5.57$, $SD = 1.69$) and the concern of fellow teammates ($M = 5.24$, $SD = 1.41$) were the enabling factors believed to empower them to carry out the ARH promotion tasks. Lack of confidence in their own skills to communicate ARH materials was the most significant factor believed to hold them up from doing the job.

For the *posyandu* cadres, the proximity of the promotion venue ($M = 6.86$, $SD = 0.36$), activity programs ($M = 6.21$, $SD = 1.05$) and schedule convenience ($M = 6.64$, $SD = 0.84$) were the factors they found most enabling in promoting ARH. Those situations allowed them to gain control in running ARH promotional work. The results of the study in phase 2 show that each group had different characteristics related to the strength of their beliefs in promoting reproductive health. Both groups had a positive attitude towards aspects of knowledge, skills, acceptance, and recognition of their role in implementing adolescent reproductive health promotion. The difference seems to be more related to concerns about the disruption of the daily activities of *Posyandu* cadres as housewives and farmers.

The most influential people for the peer educator were those who have higher authority (health workers/midwives). Whereas for *Posyandu* cadres, the competence of midwives and the support of fellow cadres has an equally strong influence on their engagement in the program.

Adequate facilities for carrying out promotions were control factor that enabled both groups in carry out the promotion. Easily accessible places made it comfortable for the cadre to do their duties. In the peer educators, concern from friends was also an enabling factor in addition to the availability of facilities.

Discussion

As previously stated, this study aimed to determine and compare the beliefs between *posyandu* cadres and peer educators on ARH promotion of particular social context. The result discovered that increased knowledge and self-confidence were the most substantial believed advantages for both groups. This was plausible as the promotional activity was an attempt to convey information on ARH to adolescents. It was only natural that as this work progressed, the *posyandu* cadres and peer educators became more familiar with ARH issues. Promotion, primarily, refers to cognitive and social skills that govern motivation and ability to access, comprehend and utilize information to promote and maintain reproductive health (Estacio 2013; Nutbeam 2000, 2008, 2015; Sentell et al. 2014).

In this case, it is known that the beliefs related to the possible advantages and disadvantages will be non-material. The values that direct them to execute the promotion of reproductive health are obedience and mutual caring. Obedience to the parties directly related to their roles such as health officers and *posyandu* administrators (*normative beliefs*). Besides, this obedience implicitly is a part of the implementation of the custom in maintaining the life expected by the Tengger people. The value of *gotong royong* and obedience also reflect on the belief in situations that are ease and under their control (*control belief*).

Important findings were that they felt worried about getting mocked by others and embarrassed to do the promotion. Such emotions are common in Asian people especially when they deal with the issues related to reproductive health, such as sexual relationship and sexually transmitted diseases are still considered taboo to be discussed openly (Cha, Kim, and Patrick 2008; Kennedy et al. 2013). However, the presence of *posyandu* cadres as part of normative belief can bring a solution to overcome these feelings by bridging the communication among peer friends.

Although the concern for resistance from the audience or lack of confidence were undeniably possible drawbacks for health promotion, they thought that possibility of getting those disadvantages was little. This situation could be understood since health promotion was regularly held as a part of the villages' programs. Furthermore, the existing village institutions had become the reinforcing agent for the cadres to continuously organize such activity. The shared values, beliefs and attitudes of the *Tenggerese* had become the fundamental aspects of developing an ARH promotion program (conformity orientation) (Barker et al. 2000; Rangarajan and Kelly 2006; Tabak et al. 2012; Valenzuela, Bachmann, and Aguilar 2016).

Cadres' participation in ARH promotion could not be exempted from the role of social pressure. The midwives (injunctive norm) played a crucial part which confirmed their willingness and compliance to promote ARH. In this study, the competencies possessed by the midwives was the basis used as a reference for them to grow the intention to promote ARH. As observed, the midwives role was to provide knowledge on the physical symptom of reproductive health problems.

Likewise, for both groups, fellow teammates in the organization (descriptive norm) were the individuals strong enough to encourage them to conduct the promotion. In this regard, no contrasting result was found in both groups. The descriptive norm works in two ways. First, it directly provides observable evidence that such behavior is also performed in their groups. Second, by performing the same behavior, they will have a chance to gain a reward (behavioral beliefs) as well as information on how to overcome the barrier to behavior (control belief). The intention to participate in ARH promotion that was determined by the social norm was a form of compliance to build and maintain a meaningful social relationship (Jacobson, Jacobson, and Hood 2015; Muldoon, Lisciandra, and Hartmann 2014).

As the ARH promotion was a voluntary activity, the promoters' primary role as full-time mothers, farmers, and students turned into an adverse situation they need to address. In that sense, their primary routine becomes a major obstacle in fulfilling their parts as ARH promoters. This is under TPB premise: If an individual believes that he or she has sufficient necessary resources and opportunities (e.g. skills, support) and he or she finds it easy to overcome obstacles, then the individual is deemed to have high perceived behavioral control (Ajzen 2012; Epton et al. 2015). Although permission from the school and lack of confidence were perceived as hurdles for peer educators, they were not considered as insurmountable due to the availability of resources to overcome the problems. Peer support and available time (i.e. after school or Sundays) served as the factors enabling peer educators to carry out ARH promotion activities. On the other hand, for *posyandu* cadres who had a direct responsibility to the head of the village, the accessible facilities and infrastructure greatly facilitated them in accomplishing their task (e.g. arranging the time).

Findings revealed that both groups shared similarities in the most dominant behavioral and normative beliefs, but not in the control beliefs. This variation is an inevitable logical consequence that cannot be overlooked when trying to understand community-based health promotion. The more complex the characteristics of a community, the more through it is to scrutinize the similarities and differences of the beliefs become a critical basis for developing a shared program (Im and Rosenberg 2016; Ingersoll et al. 2018; Olaniran et al. 2017; South et al. 2013).

The current research is formative studies on the intention of the community health promoters to promote ARH. The findings of this research have theoretical and practical implication. The research provides support the application of the TPB to understand salient beliefs of community health promoters from two groups. Further, the current research also provides qualified support for the inclusion of different groups in community health promoters. Age and role differences form these determined their beliefs in ARH promotion. The next step would be questionnaire or scale development based on these salient beliefs.

The practical implication of these findings is that getting health promoters to engage in ARH promotion would require the targeting of their salient beliefs, influencing their beliefs to be favorable to ARH promotion, enhancing the positive perception of their referents and motivating them to comply with their referents. Studies showed that a program that is developed based on the beliefs acquired in this elicitation phase would contribute positively to the sustainability of promoters' intention to promote ARH (Fishbein 2005; Ilo et al. 2018; Ingersoll et al. 2018). This study has several limitations. It was found that there was a similarity in regards to the strongest determining referent to ARH promotion for both peer educators and *posyandu* cadres group. These needs to be further investigated to obtain meaningful insight into how both group's social networks intertwine with one another (Jacobson, Jacobson, and Hood 2015; Hung et al. 2014). In principle, ARH promotion is not only a program but a set of activities closely connected to local social context. To depict the sociocultural aspects, these following characteristics need to be explored: the media used and agreed upon, the norms, and the division of roles in the community (Engeström 2011; Sutter 2011; Vakkayil 2010).

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Ethical approval

The study was approved by the Research Committee of the Faculty of Psychology Universitas Gadjah Mada (No. 1461/SD/PL.03.01/IV/2018).

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