

## ORIGINAL RESEARCH—EPIDEMIOLOGY

## Cross-Sectional Survey of Sexual Dysfunction and Quality of Life among Older People in Indonesia

Ailiana Santosa, MD, MMedSc,<sup>\*†</sup> Ann Öhman, PhD,<sup>\*†‡</sup> Ulf Högberg, MD, PhD,<sup>\*†\*\*</sup>  
Hans Stenlund, PhD,<sup>\*†</sup> Mohammad Hakimi, MD, PhD,<sup>§</sup> and Nawi Ng, MD, MPH, PhD<sup>\*†¶</sup>

<sup>\*</sup>Department of Public Health and Clinical Medicine, Epidemiology and Global Health, Umeå University, Umeå, Sweden; <sup>†</sup>Umeå Centre for Global Health Research, Umeå University, Umeå, Sweden; <sup>‡</sup>Umeå Centre for Gender Studies, Umeå University, Umeå, Sweden; <sup>§</sup>Centre for Reproductive Health, Faculty of Medicine, Gadjah Mada University, Yogyakarta, Indonesia; <sup>¶</sup>Centre for Population Studies/Ageing and Living Conditions Programme, Umeå University, Sweden; <sup>\*\*</sup>Department of Women's and Children's Health, Uppsala University, Uppsala, Sweden

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### ABSTRACT

**Introduction.** The burden of sexual dysfunction among older people in many low- and middle-income countries is not well known. Understanding sexual dysfunction among older people and its impact on quality of life is essential in the design of appropriate health promotion programs.

**Aims.** To assess levels of sexual function and their association with quality of life while controlling for different sociodemographic determinants and chronic diseases among men and women over 50 years of age in rural Indonesia.

**Methods.** A cross-sectional study was conducted in the Purworejo District, Central Java, Indonesia in 2007. The study involved 14,958 men and women over 50 years old. The association between sexual dysfunction and quality of life after controlling for potential confounders (e.g., sociodemographic determinants and self-reported chronic diseases) was analyzed by multivariable logistic regression.

**Main Outcome Measures.** Self-reported quality of life.

**Results.** Older men more commonly reported sexual activity, and sexual problems were more common among older women. The majority of older men and women reported their quality of life as good. Lack of sexual activity, dissatisfaction in sexual life, and presence of sexual problems were associated with poor self-reported quality of life in older men after adjustment for age, marital status, education, and history of chronic diseases. A presence of sexual problems was the only factor associated with poor self-reported quality of life in women. Being in a marital relationship might buffer the effect of sexual problems on quality of life in men and women.

**Conclusion.** Sexual dysfunction is associated with poor quality of life among older people in a rural Javanese setting. Therefore, promotion of sexual health should be an integral part of physical and mental health campaigns in older populations. **Santosa A, Öhman A, Högberg U, Stenlund H, Hakimi M, and Ng N. Cross-sectional survey of sexual dysfunction and quality of life among older people in Indonesia. J Sex Med 2011;8:1594–1602.**

**Key Words.** Sexual Dysfunction; Ageing; Ageing Population; Health Status; Quality of Life; Epidemiology; Indonesia

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### Introduction

Declining fertility rates, increasing life expectancy, and improvement of medical technologies have contributed to an ageing population. In 2010, there are 759 million (11%) older people (over 60 years old) out of a global population of 6.9 billion. The number of older people is

predicted to increase continuously until it reaches about 22% of the world population in 2050 [1,2]. Of these people, 53% live in Asian countries that have 61% of the world population. In Indonesia, the number of older people is predicted to exceed 15% by 2030, of which 10% will be the oldest old (aged 80 years or over) and 60% of the oldest old are women [1,3,4]. Improving older people's health and their quality of life will therefore become a major public challenge in this century.

Sexual health is an important component of healthy ageing and influences overall health and quality of life. As a sensitive aspect of life, sexuality is commonly neglected in ageing populations. Changes in sexuality are regarded as a natural phenomenon of ageing and considered a private matter. This attitude is even more pronounced in low- and middle-income countries [5–8]. Consequently, sexuality-related problems are not well acknowledged by community or health authorities and are often neglected in health care for older people [9–14]. Little is known about how changes of sexual health and function affect older people's quality of life and overall health [12,15–18].

The Indonesian government is currently facing the complex problems of a rapidly increasing ageing population. While health programs for older people focus on general health problems, they seldom address sexual health. There is also a lack of knowledge and understanding about sexuality, sexual health, and sexual problems in older people in Indonesia [4,19]. The Global Study of Sexual Attitudes and Behaviors (GSSAB) in nine Asian countries investigated sexual attitudes and behaviors among adults 40–80 years old in 2001–2002, and was focused on urban settings [8]. The GSSAB revealed that about 37% of men and 49% of women in Asia report at least one sexual dysfunction, and yet only 12% have ever sought professional help. In Indonesia, about 82% of men and 54% of women aged 40–80 years are sexually active. Approximately 27% of men and 39% of women report at least one sexual dysfunction. Only 4% reported ever seeking help for their sexual problems. This low proportion might be the result of a lack of knowledge about sexual problems and accessibility and affordability of health services. Further exploration of older people's sexuality and related problems is important in order to develop appropriate interventions to improve sexual health and quality of life in ageing populations.

## **Aims**

The aims of this study were to assess levels of sexual function and their association with quality of life while controlling for different sociodemographic determinants and self-reported chronic diseases in men and women over 50 years in rural Indonesia.

## **Methods**

### **Study Design**

This cross-sectional survey was conducted as part of a multicenter INDEPTH World Health Organization (WHO)-Study on Global Ageing and Adult Health (SAGE) in eight Health and Demographic Surveillance System (HDSS) sites within the INDEPTH Network in Africa and Asia [20].

### **Setting**

The study was conducted in the Purworejo District, Central Java Province, Indonesia in 2007. The majority of the population was rural Javanese. The Purworejo HDSS is a longitudinal field site that monitors demographic and health indicators on an annual basis since 1994. In 2007, the HDSS surveyed 55,000 individuals living in 14,500 households within its 148 enumeration areas [21].

### **Study Subjects**

All men and women aged 50 years and over who were registered in the Purworejo HDSS were invited to participate in the INDEPTH WHO-SAGE. A total of 14,958 older men and women were identified from the surveillance database.

### **Variables and Study Instruments**

This study collected information upon update of the sociodemographic information available in the HDSS database, sexual function, quality of life, and well-being. Sociodemographic information included sex, age, highest completed educational level, current marital status, current occupation, and area of living (urban/rural). The sexual function questionnaire was developed with reference to instruments from the Reproductive Risk Factors for Incontinence Study [22] and GSSAB [8] (see Appendix). The questionnaire covered three main domains of sexual life that included: (i) frequency of sexual activity; (ii) satisfaction with sexual life; and (iii) experience of sexual problems. Sexual activity was defined as any activity that stimulated sexual desire or interest, including intercourse, caressing, foreplay, and masturbation in the last 12

months. Regardless of their sexual activity, all respondents answered subsequent questions on sexual satisfaction and sexual problems. Respondents were considered satisfied with their sexual life in the last 12 months if they stated “very satisfied” or “satisfied.” We asked how many sexual problems the respondents had experienced in the last 30 days and respondents were categorized as having sexual problems if they answered “some problem” or “a lot of problems” in any of the problems asked. Respondents’ experience in any of the following sexual problems was recorded: lack of interest in sexual activity, anxiety during intercourse, lack or loss of sexual desire, inadequate lubrication, intercoital pain, difficulty in achieving orgasm, erectile dysfunction (“lemah syahwat” or “ora iso ngaceng” in Javanese language), and ejaculatory incompetence (“bar nempel njug metu” in Javanese language). In this study, responses in these three domains of sexual function were used independently to assess sexual dysfunction, i.e., abstinence from sexual activity, dissatisfaction with sexual life, and presence of sexual problems.

The main outcome measure was self-reported quality of life. Quality of life was assessed using the 8-item version of the WHO Quality of Life (WHOQoL) questionnaire. The instrument assessed respondents’ overall quality of life and whether they have enough energy for everyday life, enough money to meet their needs, satisfaction with their health and themselves, ability to perform daily living activities, personal relationships, and the condition of their living place [23]. Each item was assessed using a 5-point Likert scale. Responses were summed and transformed to a 0–100 scale with 0 representing the worst quality of life and 100 representing the best quality of life. Additional information on the presence of chronic diseases was also collected. Respondents were asked if they had been diagnosed with hypertension, diabetes mellitus, cardiac disease, asthma or lung disease, renal disease, or musculoskeletal disorders by a physician. Translation and back-translation were used to develop an Indonesian version of WHOQOL and sexual function questionnaires.

#### **Data Collection and Data Management**

The fieldwork was conducted from January to June 2007. Forty surveyors were recruited and trained to perform standardized home visits and questionnaire administration. As sexuality is a gender-sensitive issue, all interviews were con-

ducted by the same-sex interviewer to ensure the validity of responses obtained. Field supervisors organized spot-check and recheck for a total of 5% of all participants to validate and ensure the quality of the data. All completed questionnaires were checked and approved by field supervisors before being sent to the central office for data entry. Data were entered by three data entry operators using a data entry interface developed in Microsoft Visual Foxpro® and D-Entry® (Microsoft Corp, Redmond, WA, USA). Data cleaning and analysis were conducted using STATA® Statistical program Version 11 (StataCorp, LP, College Station, TX, USA).

#### **Statistical Analyses**

Descriptive analyses of sociodemographic characteristics, the prevalence of sexual activity, sexual problems in men and women, and levels of sexual satisfaction and quality of life were compiled. The WHOQoL score was categorized into quintiles. The lowest quintile represented people with the poorest quality of life and highest quintile represented those with the best quality of life. The quintiles were later dichotomized to represent respondents with poor quality of life (lowest quintile) and those without poor quality of life (the other quintiles). Multivariable logistic regression was used to assess the association between sexual dysfunction and poor quality of life after adjusting for sociodemographic characteristics and chronic diseases.

#### **Ethical Considerations**

Ethical approval was obtained from the Ethical Committee in Gadjah Mada University, Yogyakarta and the Purworejo District Health Office. Informed consent was obtained from each respondent and documented.

#### **Results**

A total of 14,958 men and women aged 50 years and older were visited. Data were obtained from 83% of respondents (N = 12,459). Nonrespondents included those who could not be contacted after two visit attempts (81%), refused to participate (8.3%), died (5%), or had out-migrated (5.7%). The nonrespondents were more likely to be men, have more than 6 years of education, and married (data not shown). Respondents with missing data for any of the variables used in the analysis were excluded. The clean, completed data set contained 11,538 respondents.

**Table 1** Population distributions by demographic characteristics and quality of life in Purworejo District, Indonesia, 2007

Characteristic	Men (%) (N = 5,342)	Women (%) (N = 6,196)
Age group (years)*		
50–59	37.5	36.9
60–74	46.9	49.8
≥75	15.7	13.3
Marital status*		
Unmarried	0.9	1.2
Married/living together	87.1	58.5
Divorced/separated	12.0	40.3
Living area		
Urban	8.7	9.6
Rural	91.3	90.4
Highest educational attainment*		
≤6 years	78.6	89.8
6–12 years	17.9	9.0
>12 years	3.5	1.1
Current occupation*		
Unpaid work and retirement	13.8	32.9
Informal/agriculture	75.6	57.9
Private sector	5.8	7.9
Government sector	4.9	1.2
Self-reported chronic disease		
Hypertension*	11.0	15.7
Diabetes mellitus	2.0	2.1
Renal problems*	1.2	0.7
Cardiac disease	1.3	1.5
Musculoskeletal problems*	9.7	11.4
Asthma*	5.0	3.2
WHO quality of life*		
1st quintile (poorest)	24.5	29.7
2nd quintile	19.6	19.5
3rd quintile	27.6	25.3
4th quintile	22.8	21.7
5th quintile (best)	5.5	3.9

\*Men and women differ significantly ( $P < 0.05$ ) as indicated by a chi-square test.

The distribution of demographic characteristics, chronic diseases, and quality of life in older men and women are shown in Table 1. There were 2,560 respondents (22.2%) with WHOQoL scores equal to 80 and only 4.63% with a score >80. Consequently, the 5th quintile represents less than 5% of study subjects. This, however, did not influence the analyses because the quality of life was later dichotomized (1st quintile vs. other quintiles).

Women were more likely than men to be sexually inactive. Sixty-six percent of women and 31% of men reported no sexual activity in the 12 months preceding the survey. Less than 10% of men and women reported that they were dissatisfied with their sexual life. There were significantly larger proportions of women who reported sexual problems or had less satisfaction with their sexual life compared to men. Three times more women reported no sexual partners in the last 12 months

than men did (Table 2). Lack of a sexual partner's interest in sexual activity was the main reason why older men and women did not engage in sexual activity in the prior 12 months. Another reason was existing physical problems that imposed limitations on sexual activity (data are not shown). The proportions of older men and women aged 75 years or older that reported abstinence of sexual activity, dissatisfaction with sexual life, and presence of sexual problems were significantly higher than those aged 50–59 years. About 86% of women aged 50 or over were menopausal and reported more sexual problems than menstruating women. The most commonly reported sexual problems among the men were premature ejaculation (17.1%), feelings of anxiety during intercourse (16.7%), and erectile dysfunction (16%). The women reported inadequate lubrication during sexual contact (30.1%), anxiety during sexual intercourse (28%), and loss of sexual desire (28%).

Univariate analyses (Table 3) found that abstinence or infrequency of sexual activity, presence of sexual problems, and dissatisfaction with sexual life were associated with poor quality of life in both men and women. The multivariable analyses found that the association of sexual dysfunction in all three domains and poor quality of life decreased in men after adjustment for age group, marital status, highest educational attainment, and presence of chronic diseases. In women, the multivariable analyses showed that experience of sexual problems as the only sexual-related factor associated with poor quality of life. Women who reported having hypertension, diabetes, or asthma had higher odds for poor quality of life. Informa-

**Table 2** Sexual function in older men and women in Purworejo District, Indonesia, 2007

Variables	Men (%) (N = 5,342)	Women (%) (N = 6,196)
Proportion who did not have sexual activity in the last 12 months*	31.1	65.7
Proportion who are dissatisfied with their sexual life in the last 12 months*	5.6	7.9
Proportion with any sexual problem in the last 30 days*	23.5	34.7
Proportion who did not have sexual partners in the last 12 months*	11.1	41.6
Sexual frequency in the last 12 months*		
Never	30.6	64.9
Once a year	16.1	13.0
Once a month	34.4	17.8
Once a week	8.3	2.9

\*Men and women differ significantly ( $P < 0.05$ ) as indicated by a chi-square test.

**Table 3** The association between sexual functions and poor quality of life in older men and women in Purworejo District, Indonesia, 2007

Variables	Univariate OR (95% CI)		Multivariate OR (95% CI)	
	Men	Women	Men	Women
No sexual activity	2.1 (1.85–2.38)	1.79 (1.59–2.01)	1.25 (1.02–1.53)	1.11 (0.91–1.36)
Sexual frequency				
Never	3.14 (2.48–3.98)	3.50 (2.48–4.93)	NA	NA
Once a year	2.43 (1.87–3.16)	2.72 (1.88–3.93)	NA	NA
Once a month	1.28 (1.00–1.64)	1.67 (1.16–2.40)	NA	NA
Dissatisfied with sexual life	2.27 (1.80–2.87)	1.40 (1.16–1.69)	1.53 (1.19–1.98)	1.13 (0.92–1.38)
Have sexual problems	2.09 (1.82–2.40)	1.54 (1.38–1.72)	2.08 (1.65–2.63)	1.43 (1.15–1.79)
Did not have sexual partner	0.51 (0.43–0.60)	0.61 (0.55–0.68)	NA	NA
Age group (years)				
60–74	1.84 (1.59–2.14)	1.84 (1.62–2.09)	1.40 (1.19–1.64)	1.50 (1.31–1.72)
≥75	3.66 (3.05–4.39)	3.27 (2.76–3.88)	2.29 (1.86–2.82)	2.46 (2.04–2.98)
Marital status				
Unmarried	2.24 (1.25–4.01)	1.40 (0.86–2.29)	2.05 (0.94–4.47)	1.09 (0.58–2.07)
Separated/divorced	2.03 (1.71–2.42)	1.62 (1.45–1.81)	1.42 (1.09–1.85)	1.17 (0.97–1.42)
Highest educational attainment				
≤6 years	3.94 (2.35–6.60)	2.46 (1.29–4.70)	3.28 (1.92–5.59)	1.85 (0.95–3.57)
6–12 years	2.21 (1.29–3.79)	0.88 (0.44–1.75)	2.26 (1.30–3.93)	0.79 (0.39–1.59)
Current occupation				
Unpaid workers and retired	4.51 (2.94–6.91)	10.83 (3.94–29.77)	NA	NA
Informal sector	2.76 (1.84–4.14)	6.38 (2.32–17.51)	NA	NA
Private sector	1.60 (0.97–2.64)	5.43 (1.94–15.19)	NA	NA
Living in rural area	0.83 (0.67–1.03)	0.94 (0.79–1.13)	NA	NA
Chronic disease				
Hypertension	1.75 (1.46–2.10)	1.51 (1.31–1.75)	1.53 (1.26–1.86)	1.38 (1.19–1.60)
Diabetes mellitus	1.41 (0.93–2.12)	1.35 (0.94–1.94)	1.73 (1.11–2.71)	1.57 (1.07–2.30)
Renal problems	1.09 (0.63–1.90)	1.18 (0.64–2.21)	1.19 (0.67–2.13)	1.15 (0.59–2.24)
Cardiac disease	2.10 (1.28–3.44)	1.28 (0.84–1.97)	1.93 (1.14–3.25)	1.10 (0.70–1.73)
Musculoskeletal problems	1.57 (1.29–1.91)	1.35 (1.15–1.60)	1.27 (1.04–1.56)	1.12 (0.94–1.33)
Asthma	2.56 (1.99–3.28)	1.70 (1.27–2.26)	2.02 (1.56–2.63)	1.36 (1.01–1.84)
Sexual problems × unmarried	NA	NA	4.75 (1.73–13.05)	2.91 (1.16–7.27)
Sexual problems × divorced	NA	NA	2.45 (1.68–3.55)	1.64 (1.21–2.22)
Sexual problems × without sexual activity	NA	NA	1.60 (1.30–1.96)	1.51 (1.22–1.86)

Reference groups were those who had sexual activity in the last 12 months, had sex at least once a week, were sexually satisfied, without any sexual problems, had sexual partner, aged 50–59 years old, married, attained educational level >12 years, worked in the government sector, lived in an urban area, and were without a chronic disease. Sexual partner, sexual frequency, current occupation, and living area were not analyzed in the multivariate model as there was high collinearity between these variables with other retained in the analysis.  
OR = odds ratio; CI = confidence interval.

tion on occupation, sexual frequency, and sexual partner was excluded in the multivariable analyses because of a high collinearity between these variables with others retained in the analyses.

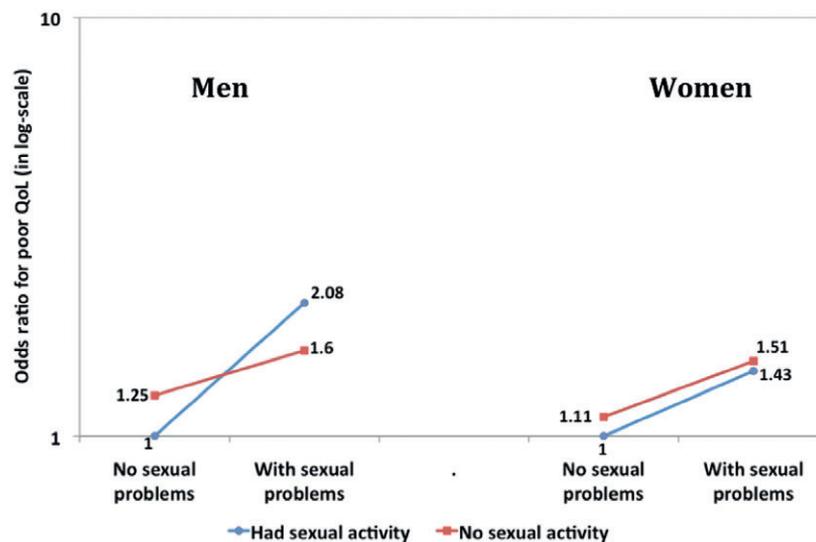
We identified significant interactions between sexual activity and sexual problems, as well as between marital status and sexual problems. Sexual activity modified the association between sexual problems and poor quality of life in men, but not in women (Figure 1). Even though the observed joint effect of sexual problems and no sexual activity was statistically significant in women (odds ratio [OR] = 1.51, 95% confidence interval [CI] 1.22–1.86), it was very close to their expected joint effect, and therefore no interaction can be identified. Marital status modified the association between sexual problems and poor quality of life in both men and women. Unmarried men who had sexual problems (OR = 4.75, 95% CI = 1.73–13.05) had higher odds of poor quality of life com-

pared to married men with sexual problems (OR = 2.08, 95% CI = 1.65–2.63). The corresponding OR were 2.91 (95% CI = 1.16–7.27) in unmarried vs. 1.43 (95% CI = 1.15–1.79) among married women (Figure 2).

## Discussion

We examined the levels of sexual function and associations between sexual dysfunction and quality of life in older women and men in a rural Indonesian setting. To our knowledge, this is the first study on older people's sexual health and quality of life in low- and middle-income countries. Several key findings emerged from this cross-sectional study.

First, women and men reported different levels of sexual function. In this setting, older men were more likely to engage in regular sexual activity, have a sexual partner, and report fewer sexual

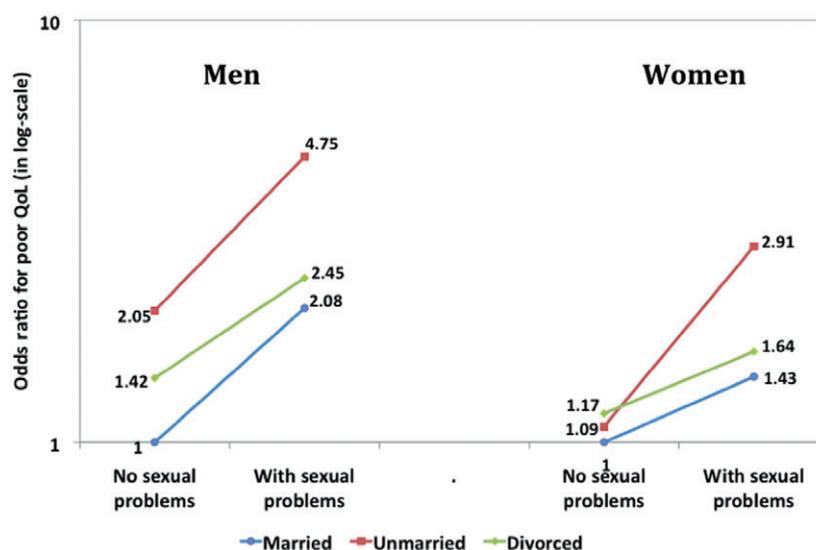


**Figure 1** Effect modification of sexual activity on the association between sexual problems and poor quality of life.

problems than older women. These findings are consistent with findings from several Asian, Western countries, and South America [6,8,24–26]. Physiological changes, loss of partner, lack of personal or partner's sexual interest, and presence of chronic disease that might influence the ability to perform sexual activities may be responsible for the higher proportion of abstinence among the oldest age group [26,27]. Indonesian women have a higher life expectancy than men [28], and therefore, it is expected that a higher proportion of men than women will still have their sexual partner. In highly populated countries with overcrowded houses where both the core and extended families live together, private space for engaging in sexual activity is often limited [4,8,29,30]. In

addition, myths about sexuality among older people, such as that sex is taboo, undesirable, and inappropriate for older people, may also explain why sexual activity decreases with age in Indonesia [31].

Our study among older rural men and women showed different patterns of sexual problems compared to the findings from the GSSAB study that focused on an urban area of Indonesia. The GSSAB reported that the main sexual problems among older urban people (aged 40–80 years) were lack of sexual interest, erectile dysfunction in men, and inability to achieve orgasm in women [8]. In our rural setting, anxiety during intercourse, premature ejaculation in men, and inadequate lubrication in women were reported as the primary



**Figure 2** Effect modification of marital status on the association between sexual problems and poor quality of life.

sexual problems. We found no differences in how older men and women report satisfaction with their sexual lives. Previous studies have shown that partner sexual behavior, social background, and presence of physical or psychological problems can influence physical and emotional sexual satisfaction [8,32,33]. Levels of sexual satisfaction are known to be subjective and consistently higher in men than women irrespective of sociocultural context [8,24,30].

Second, the majority of older men and women in Purworejo District, Central Java rated their quality of life as good or very good. The subjective assessments of quality of life and health are dependent upon both culture and context. The majority of the respondents was rural Javanese, for whom traditional Javanese values and ways of life still predominate. In Javanese culture, people believe that life is a destiny and they unconditionally accept their living situations. A healthy life is viewed as a life with minimal health problems or diseases and with harmony in family and community lives and their relation with God [34]. Stronger family networks and support might also contribute to better-perceived quality of life among older men and women in this setting [4,35,36]. Indonesian older people commonly live either with, or close to, their children so they can be taken care of by their core and extended families. Children are responsible for the care for their older parents. Recent economic development, labor migration, and urbanization might be influencing social and cultural changes, and subsequently result in fewer younger family members remaining in rural areas to support their parents. This situation can impact daily health care and quality of life among older people.

Third, our study found that older men's experiences and expectations in different domains of sexual life are associated with self-reported quality of life. Presence of sexual problems is the only factor significantly associated with self-reported poor quality of life in women after adjusting for sex, age, marital status, education, and chronic diseases. This study supports the findings of prior studies on sexual dysfunction and quality of life in older people in high-income countries [16,30,37,38]. Previous studies have shown that living alone, having low satisfaction with one's sexual life, and having sexual problems influence quality of life in men and women [32,33,37]. In the current study, the effects of low education, living alone, and presence of comorbidities on quality of life are consistently lower in women than in men.

Cultural and social norms may play a significant role in the observed gender differences in self-reported quality of life. Our findings also point out the importance of marital status in modifying the effects of existing sexual problems on quality of life. Other studies have shown the impact of socioeconomic and cultural factors on sexual dysfunction and self-reported quality of life among older people [6,8].

Several limitations in this study should be noted. As a baseline cross-sectional study, this study was not designed to allow us to establish any causality in the associations between sexual dysfunction and poor quality of life. A 5-year follow-up study is planned for the INDEPTH WHO-SAGE in 2011 and it is possible to ascertain the causality between sexual dysfunction at baseline and quality of life in subsequent follow-up. The prevalence of sexual dysfunction might be underestimated due to the sensitivity of talking about sexuality in the Indonesian setting. However, proper training of interviewers and same-sex interviews hopefully reduced this potential threat to validity. The majority of the study respondents was Javanese. Therefore, the results from this study, which are cultural and context dependent, should be considered in the interpretation of the results.

#### *Implications for Public Health Practice and Future Research*

As sexual dysfunction is significantly associated with poor quality of life in older men and women aged 50 years and over, sexual health should be considered as an integral part of overall health and quality of life in older people. Assessment of older people's sexual health should be part of routine activities at primary healthcare facilities. Therapeutic counseling should be provided for those in need. A future study to explore the local community perceptions and acceptance of various myths about older people's sexual lives and how these myths have contributed to the neglect of sexual health problems in Indonesia will provide a deeper understanding of the problem. Future studies should also examine how gender power relations influence older people's sexual function and health. This will assist in an understanding of the inequality of sexuality and quality of life among older people in different population subgroups. Interventions to promote sexual health and quality of life in older people must be integrated into overall health promotion strategies.

## Conclusions

Sexual dysfunction is associated with poor quality of life among older people in the rural Javanese setting. Promotion of sexual health in older people should be an integral part of overall health promotion. Dealing with sexual dysfunction among older people through different biopsychosocial interventions might improve older people's quality of life and potentially prevent morbidity and mortality.

**Corresponding Author:** Ailiana Santosa, MD, MMedSc, Department of Public Health and Clinical Medicine, Epidemiology and Global Health, Umeå University, 90185 Umeå, Sweden. Tel: +46907851333; Fax: +4690138977; E-mail: ailiana.santosa@epiph.umu.se

**Conflicts of Interest:** The authors do not identify any conflicts of interest.

## Statement of Authorship

### Category 1

#### (a) Conception and Design

Ailiana Santosa; Mohammad Hakimi; Nawi Ng

#### (b) Acquisition of Data

Ailiana Santosa; Mohammad Hakimi; Nawi Ng

#### (c) Analysis and Interpretation of Data

Ailiana Santosa; Hans Stenlund; Nawi Ng

### Category 2

#### (a) Drafting the Article

Ailiana Santosa; Ann Öhman; Ulf Högberg; Nawi Ng

#### (b) Revising It for Intellectual Content

Ailiana Santosa; Ann Öhman; Ulf Högberg; Hans Stenlund; Mohammad Hakimi; Nawi Ng

### Category 3

#### (a) Final Approval of the Completed Article

Ailiana Santosa; Ann Öhman; Ulf Högberg; Hans Stenlund; Mohammad Hakimi; Nawi Ng

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## Appendix

### Sexual Dysfunction Questionnaire

1. Overall in the last 12 months, have you had sexual activity? (1 = Yes; 2 = No)  
Sexual activity is defined as any activities that stimulate sexual desire or interest, including intercourse, caressing, foreplay and masturbation. If Yes, go to number 3.
2. Specify the reasons for not having sexual activity in the last 12 months (multiple answers are allowed).
  - There is no interest. (1 = Yes; 2 = No)
  - Have a physical problem that causes difficulty in sexual activity. (1 = Yes; 2 = No)
  - The couple was not interested. (1 = Yes; 2 = No)
  - My spouse has a physical problem that causes difficulty in sexual activity. (1 = Yes; 2 = No)
  - Other reason, specify:
3. Have you had sexual partners in the last 12 months? (1 = Yes; 2 = No)
4. How frequent has your sexual activity been in the last 12 months? (1 = No sexual activity at all; 2 = At least once a year; 3 = At least once a month; 4 = At least once a week; 5 = At least once a day)
5. Overall in the last 12 months, have you been satisfied with your sexual life? (1 = Very satisfied; 2 = Satisfied; 3 = Not sure; 4 = Not satisfied; 5 = Not very satisfied).

### For Women

- 1 Have you approached menopause? (1 = Yes; 2 = No)
- 2 When did you approach menopause? (number of months or years)
- 3 Overall in the last 30 days, to what degree of the following sexual problems did you have? (1 = None; 2 = A small problem; 3 = Some problem; 4 = A large problem)
  - Intention and interest with sexual activity
  - Feels anxiety during intercourse
  - Lacks or loses sexual desire
  - Inadequate lubrication
  - Difficulty achieving orgasm
  - Feels pain during intercourse

### For Men

Overall in the last 30 days, to what degree of the following sexual problems did you have? (1 = None; 2 = A small problem; 3 = Some problem; 4 = A large problem)

- Intention and interest with sexual activity
- Feels anxiety during intercourse
- Lacks or loses sexual desire
- Difficulty achieving orgasm
- Ejaculatory incompetence ("bar nempel njug metu" in Javanese language)
- Erectile dysfunction ("lemah syahwat" or "ora iso ngaceng" in Javanese language)