

STUDY ON PUBLIC AWARENESS AND KNOWLEDGE REGARDING INFERTILITY

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ABSTRACT

Introduction

The infertility rate in Malaysia is estimated around 10 to 15%. World Health Organization has classified infertility as a disease that needs attention as early as possible. It is one of the factors that contribute to decreasing total fertility rate. Public misunderstanding regarding infertility may affect on how they handle this issue.

Although infertility is a serious global issue, somehow people often undermine this problem. People always take this issue lightly since it is not a life-threatening disease, unlike heart attack, diabetes and cancer. The Bertarelli Foundation Scientific Board (1999) had found that infertility awareness was still low in a few countries in Europe, such as Belgium, Italy, France, Germany, Sweden and United Kingdom. Knowledge on infertility is very crucial because it helps couples to prepare when they are having difficulty in conceiving. The objective of this study was to identify our local people awareness and knowledge on infertility issues as very few studies have been done in Malaysia.

Materials and Methods

Sampling method used was convenience sampling; which involved online survey in the homepage of National Population and Family Development Board (NPFDB) for the period of three months. Links in few other web sites such as NPFDB Facebook Page, The Star Online, Berita Harian Online, Government of Malaysia's Portal and MyBooks Homepage, were also made available. The questionnaire, which was established in dual-language, consisting of Part 1 (Personal Background), Part 2 (Infertility Awareness) and Part 3 (Infertility Knowledge). All completed forms were

collected, recorded and analyzed by using SPSS software. Confidence interval and alpha value used were 95% and 0.05, respectively.

Results and Discussion

A total of 1223 respondents participated in this study. About two-thirds of the participants were women, comprising 42% Chinese, 40% Malays, 11% Indians and 7% others. Half of the participants were in the age group from 21 to 30 years old, followed by 31 to 40 (36%), 41 to 50 (9%) and lastly, below 20 years old (4%). Majority of the participants lived in the urban area (89%), graduated from higher education institution (89%) with household living income of MYR 3,000 and above (59%).

The study showed as many as 1074 respondents (88%) knew about infertility. Most of them were women (91%), in the age group of more than 30 years (91%), living in urban area (89%) and highly educated (90%). Previous studies (Bunting and Boivin 2008, Ali et al. 2009 and Peterson et al. 2012) also found that people were aware of infertility albeit with false perception. Internet (81%) and magazine (71%) were the two most popular sources that people obtained information on infertility. However, less than 10% respondents learned about infertility from NPFDB.

The study also found that as many as 346 (28%) respondents had experienced problems in conceiving and most of them (82%) have undergone treatment. This finding, which was higher than infertility rate in Malaysia, may be due to the non-probability sampling used in this study. Majority of respondents seek treatment from private hospital/ clinic (68%), followed by government hospital/ clinic (26%) and conventional treatment places (23%). Many people still believe in conventional treatment even though it does not solve the problem entirely as manifested in the study and previous study by Ola et al. (2010), where people in Osun, Nigeria, also prefer seeking treatment from a pious (42%) and an orthodox individual (27%). Only 278 (23%) respondents knew about the existing infertility services provided by NPFDB. However, two-thirds of them were willing to use the service if they have problem in conceiving later.

Besides awareness, respondents were also tested on their infertility knowledge based on facts and myths. Overall, mean score were higher for the questions on infertility facts (783) compared to myths (585). This showed that public still believed in infertility myths. People were found better at identifying risk factors rather than infertility myths (Bunting and Boivin 2008). Majority (89%)

respondents answered it correctly and knew that infertility treatment can help couple getting pregnant (Table 1). However, not many people (48%) were aware that some couples tend to get problems in conceiving second child. They did not realize that secondary infertility is a major issue that affected around 23% couples in Southeast Asia (Rutstein et al. 2004). When asked on the myths, half of the respondents thought that men, who were impotent (erectile dysfunction), were infertile (Table 2). Whilst, about two-thirds of the respondents did not believe that women who adopted a child will eventually become pregnant.

Table 1 Total Score on Infertility Statements - Facts

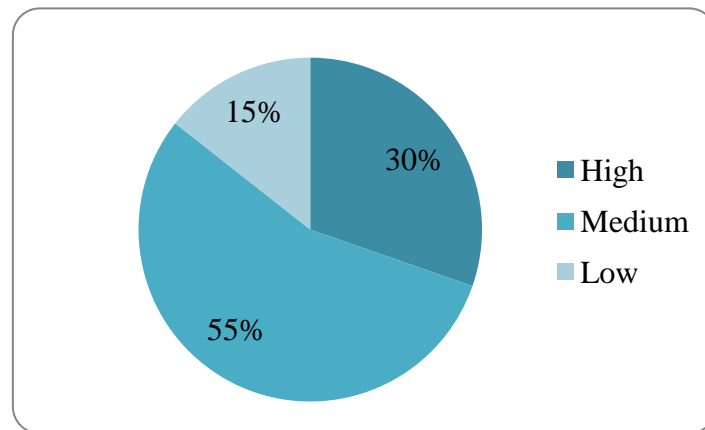
No	Statement	n	(%)
1	If a couple is unable to conceive, the percentage of the causes of infertility can equally arise from both husband and wife.	681	56
2	A few women who have given birth to their first child, may experience problem conceiving again.	590	48
3	Obese women are more likely to have infertility problem.	806	66
4	Irregular menses can cause infertility problem.	755	62
5	Infertility treatment can help a couple to conceive.	1085	89

Table 2 Total Score on Infertility Statements - Myths

No	Statement	n	(%)
1	A man is considered infertile if he has watery semen.	581	48
2	The habit of eating egg white can influence sperm's concentration.	486	40
3	Impotence in men can be associated with infertility.	361	30
4	When infertile women adopt a child, they usually get pregnant.	771	63
5	Frequent masturbation during adolescent will cause absence of in semen.	575	47
6	Infertility is a hereditary disease.	734	60

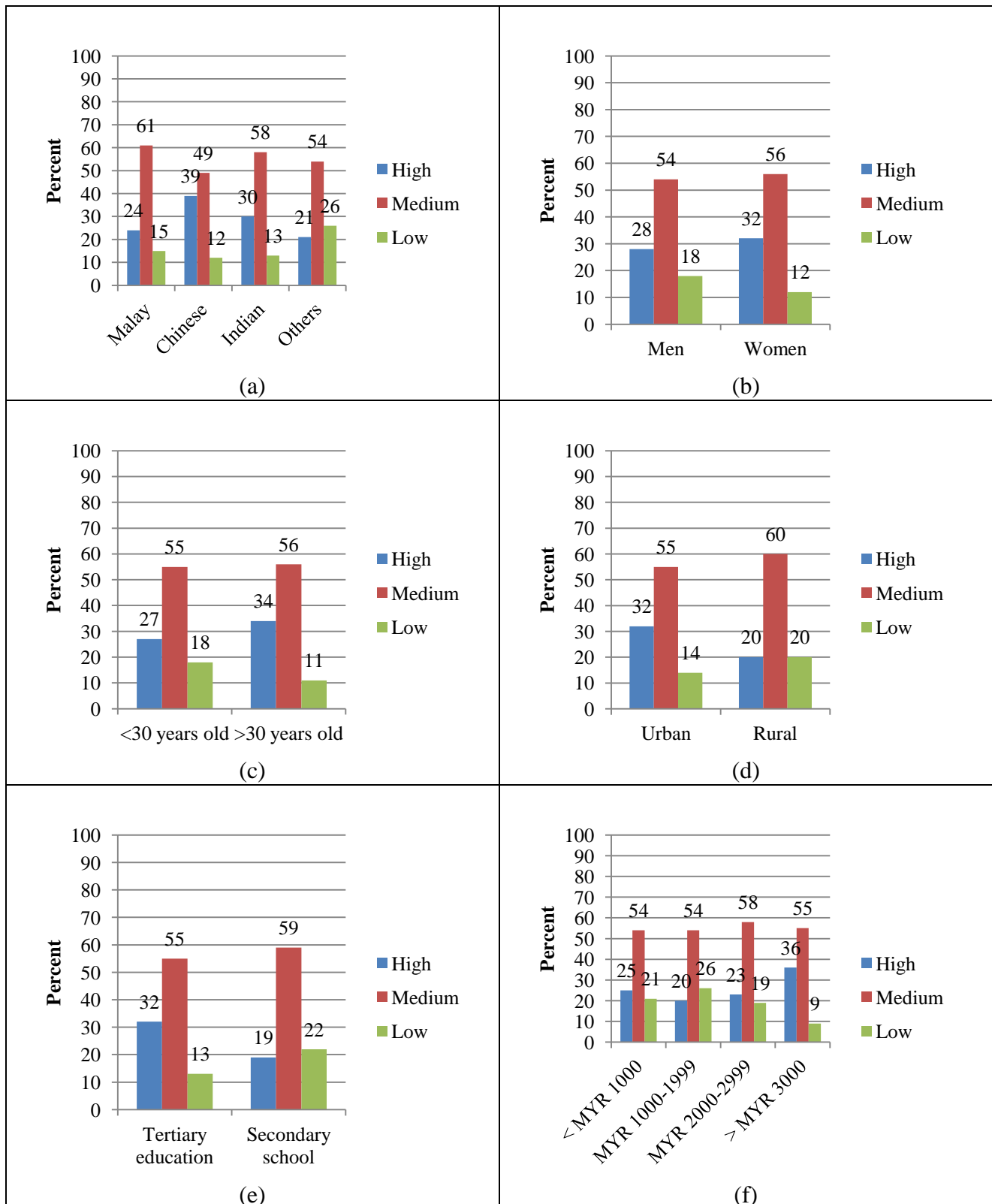
Level of infertility knowledge was divided into three categories, which were high (more than 7 correct answers), medium (4 to 7 correct answers) and low (less than 4 correct answers). Only 30% of the respondents were found to have high-level of knowledge on infertility (Figure 1). This is also corroborated by previous studies that found infertility knowledge among public was very limited (Dyer et al. 2001, Ola et al. 2010 and Ali et al. 2011).

Figure 1 Level of Infertility Knowledge



Chi square test was used to determine relationship between knowledge on infertility and socio-demographic profile. We learned that there were significant differences ($p < 0.05$) on infertility knowledge for all variables. Chinese (39%) were found to have higher knowledge compared to Indians (30%) and Malays (24%) [Figure 2(a)]. Furthermore, more women were found with high-level of knowledge than men [Figure 2(b)], which was supported by a study done by Ali et al. (2011). The test also showed that people in the age group above 30 years old [Figure 2(c)], living in urban [Figure 2(d)] with higher education level [Figure 2(e)] and earns monthly income of above MYR 3,000 [Figure 2(f)] had higher-level of infertility knowledge compared to others. Older people tend to have higher knowledge of infertility as they were married earlier and exposed to the subject more than younger people. Besides, people who live in urban area have higher knowledge due to easy accessibility to infertility information and infrastructure.

Figure 2 Relationship between infertility knowledge and socio-demographic profile



Notes:

a; Ethnic, b; Gender, c; Age group, d; Area of living, e; Education level, f; Household income

All tests are found significant at $p < 0.05$

Even though infertility rate is quite high, the level of knowledge is average. Information on infertility need to be widely disseminated to increase public knowledge and debunking the myths around this issue. Therefore, couples who experienced the problem could seek immediate medical attention to increase the likelihood of conception.

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