Survey of the Knowledge, Attitudes and Practice (KAP) Towards Infertility and Sexually Transmitted Diseases (STDs)

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Abstract : *The Knowledge, Attitudes, and Practice (KAP) towards infertility and Sexually Transmitted Diseases (STDs) management among primary health care workers have been studied in 415 health workers of seven provinces in Southern Thailand. All participants completed a questionnaire on the level of health behavior change continuum : 1) awareness and concern 2) knowledge 3) false attitudes and 4) practice. Most of the health workers were already aware and concerned about infertility and STDs, including the general concept of treatment and prevention. The definition and what constitutes infertility require explanation and understanding as nearly one-third of the respondants had incorrect ideas. The knowledge and skills to cope with infertility and STDs, as well as individual education on safer sex and existing STDs associated or with increased risk of HIV infection, were not satisfactory. (Thai J Obstet Gynaecol 1995; 7:69-75.)*

Key words : KAP, infertility, STDs, primary health care,

In Thailand, the health delivery system consisted of provision of services which include mother and child health and family planning, communicable disease control, school health, health education, and distribution of government produced household remedies through the existing health infrastructure from the centre to province, district, and sub-districts. The primary health level consists of community hospitals and local health centres in the districts and sub-districts respectively.[1]

In developing countries, limited health resources have not allowed widespread Sexually Transmitted Diseases (STDs) clinical services to be

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established.[2] Physicians mainly work in hospital settings, from the district level up to national reference of teaching hospitals, and these facilities cater to the health problems of only 10 to 30 per cent of the population.[3] Paramedics, with variable supervision by physicians, are dealing with STDs[4] and also providing infertility services.

Many countries have noted increased infertility as a consequence of the current STDs epidemic; and the number of countries with growing STDs problems are increasing.[5] Prevention of infertility caused by STDs depends on a multifaceted, community wide effort by clinicians and other health workers to control the spread of STDs and to prevent sequelae of existing diseases.[6]

The major concern is to assess the current status of STDs and infertility services, and to train non physicians to do much of the physicians' work with apparent safety and patient satisfaction.[7] The priorities are to develop a rational approach to the management of infertility at the primary and secondary health care levels, and developing and pilot testing a primary health care management scheme directed towards the identification and treatment of lower genital tract infection as a means of preventing subsequent female tubal occlusion.[8]

Data concerning the management of STDs at the primary health care level in Thailand are rare, and in order to plan and manage the problems of STDs and infertility in the community, the detailed information is essential. It is important to identify the relevant information about STDs and infertility which is used in the community (local health centre). Increasing national concern over the shortage of physicians in rural areas, the primary care is first contact, comprehensive in scope, continuous in duration, and offering the generalist rather than the specialist perspective.[9]

The objective of the study was to survey the knowledge, attitudes, and practice towards STDs and infertility and STD management amongst primary health care workers. Our belief is that this evaluation of infertility and STDs management will provide information for the health authorities, so that primary health services in this area can be improved.

Materials and Methods

The participants were the health officers of the local health centers and of the STDs units in seven provinces of Southern Thailand: Songkla, Pattani, Yala, Narathiwat, Stoon, Pattalung, and Trang province.

The investigators conducted an anonymous questionnaire which were self administered among 415 health officers. All participants completed the questionnaire about the level of health behavior change in their infertility and STDs management, including (1) awareness and concern (2) knowledge (3) false attitudes (4) practice. In addition, a number of demographic

questions were asked.

Results

The 415 individual contacted were distributed by provinces as follows: Songkla (47), Pattani (46), Yala (78), Narathiwat (87), Stoon (50), Pattalung (49), and Trang (58). The mean age of the health workers was 31.9 years (SD ± 6.6), and the mean duration of working was 10.9 years (SD ± 8.2). Most of them were female (85.5%), married (69.6 %), Thai (92.2%), and Buddhist (73.4)%. The distribution of the health workers' profession was midwife (33.9%), nurse (21.6%), public health (9.3%), and other (33.7%).

The health workers' awareness and concern about AIDS is given in Table 1. Most of the workers were already aware and concerned about infertility and STDs.

Most of the respondants (92.5%) had heard of the word "infertility", but only 10.6% were capable to give a precise definition of "infertility". More than one fourth of them (28.4%) understood that the meaning of "infertility" was the same as "sterility". They understood the following conditions could result in infertility: congenital defect(s) of sex organs (76.1%), vaginal atresia or imperforate hymen (62.4%), cervical obstruction (86.5%), tubal occlusion (93.0%), endocrinopathy (90.6%), chronic illness (76.3%), faulty spermatogenesis (83.3%), faulty sperm transmission (83.6%), and faulty semen (67.4%). In addition, they were knowledgeable that various microorganisms can cause sexually transmitted diseases: bacteria (86.7%), viruses (84.3%), fungi (85.5%), and protozoa (72.2%).

Table 1 *Awareness and concern responses about infertility and STDs among the health workers (N=415)*

	Infertility No. (%)	STD No. (%)	P value *
Awareness response :			
- it is a health problem	337 (81.2)	388 (93.4)	S
- it is preventable	219 (52.7)	393 (94.6)	S
- it is communicable	14 (3.3)	365 (87.9)	S
Concern response :			
- feel your work is responsible towards, infertility and STDs	315 (75.9)	388 (93.4)	S
- ever sought more information about it	337 (81.2)	395 (95.1)	S
- ever discussed about it with your co-workers	294 (70.8)	360 (86.7)	S
- had in mind that history taking about this condition is useful	376 (90.6)	394 (94.9)	NS

* S = significant P < 0.05

Table 2 *Understanding the concept of STD treatment and prevention (N=415)*

Items	No. (%)
Treatment of STD	
- appropriate antibiotic to each disease is the best choice of therapy	358 (86.2)
- some diseases should include treatment of his/her sexual partner	401 (96.6)
- the treatment of the sexual partner can prevent "ping-pong" phenomenon	341 (82.1)
Prevention of STD	
- the condom is the best way to prevent STDs	363 (87.4)
- they should advise the patients to use the condom	366 (88.1)
- they should advise the patients to be examined when STDs symptoms occur	409 (98.5)
- they should have a blood test for some STDs in the high risk behavior populations	408 (98.3)
- they should advise the patients to avoid promiscuity	406 (97.8)
- they should advise the patients to use "safe sex"	406 (97.8)

Nearly two third (64.0%) of the health workers realized that all of the possible symptoms could present as STDs in females (increased vaginal secretion, offensive discharge, yellowish discharge, itching of the vulva, vulva ulcer or lesion, and lower abdominal pain), whereas 17.8% identified some of these items. In comparison, only 50.3% realized the symptoms associated to the STDs in males (dysuria, urethral discharge, and ulcer or lesion of the penis), and nearly one third of them (30.8%) identified some of these items. However, most of them were aware of STDs treatment and prevention as shown in Table 2.

As it can be seen in Table 3, the false perceptions increased to nearly one third of replies; infertility is caused by hormonal contraception (31.0%), infertility is caused by promiscuity (34.4%), and STDs is caused by sexually exposure only (38.0%).

Regarding to the general management of the infertile couple, most of primary health care workers (91.3 %) advised the couple to have an opinion from a doctor, and nearly half of them (54.9%) referred the patients to a provincial hospital. As regards to the STDs patients, 74.9% adviced the patients to have an opinion from a doctor, and 61.5% of

Table 3 *False perceptions about infertility and STD (N=415)*

Items	No. (%)
Infertility	
- infertility is caused by promiscuity	143 (34.4)
- infertility is caused by hormonal contraception	129 (31.0)
- infertility is caused by husband or wife alone	44 (10.6)
- infertility is caused by marital infidelity	27 (6.5)
- infertile couples should consult their priest or imam	15 (3.6)
- infertility is caused by supernatural being	10 (2.4)
- infertile couples should take native treatment	8 (1.9)
- infertility is caused by witchcraft	3 (0.7)
STD	
- STDs are caused by sexually exposure only	158 (38.0)
- STDs do not occur in children	61 (14.1)
- STDs can be prevented by antibiotic prophylaxis	61 (14.1)
- STDs can be prevented by immediately cleansing with antiseptic solution after sexual intercourse	44 (10.6)
- STDs can be aggravated by some kind of food or fruits	38 (9.1)
- STDs can be prevented by taken urinary antiseptics	18 (4.3)
- STDs can be cured by intercourse with virgin partner	10 (2.4)

Table 4 *Actual practice of infertility and STD among health workers*

Items	Infertility No. (%)	STD No. (%)	P value *
Usually take a history from the patients	294/415 (70.8)	320/415 (77.1)	NS
Number of patients < 5 per month who they usually consulted for the problem case	327/415 (78.8)	350/415 (84.3)	NS
- doctors	91/148 (61.9)	103/203 (50.7)	NS
- colleagues	9/148 (6.0)	20/203 (9.8)	NS
- other	15/148 (10.2)	32/203 (15.7)	NS
- not specify	33/148 (22.3)	48/203 (23.6)	NS
Results of their treatment			
- most of the patients had a good outcome	37/260 (14.2)	93/337 (27.5)	S
- some of the patients had a good outcome	93/260 (35.7)	202/337 (59.9)	S
- most of the patients had a poor outcome	130/260 (50.0)	42/337 (12.4)	S

* S = significant $P < 0.05$

them referred the patients to the community hospital.

Individual patient health education compatible with the health workers' concept of STDs prevention was carried out with the exception of "safer sex". They gave the details and recommended that the patient should have an HIV test in only 64.3%.

Discussion

This study describes the existing STDs and infertility management in Southern Thailand among primary health care delivery. The awareness and concern, and the understanding the concept of treatment and prevention among STDs and infertility are satisfactory (Table 1). However, the actual knowledge and professional skills to manage the problem in STDs and infertility efficiently are still inadequate (Table 2-4). Coordination and cooperation between concerned organizations needed in development of the curriculum and setting the training components. The aim is to strengthen the existing health workers in the cognitive, skill, and attitude developments. Thus, they would provide welcome hale for overworked physicians and improved access of health care services. There was concern, however, that health workers with relatively brief clinical training would not be able to provide good quality patient care, even when closely supervised by physicians.[10,11]

In Thailand, even if the introduction of the physician's assistant results in easier access to medical services at decreased cost, the assessment of the effect of the physician's assistants has been relatively little effort. The mechanism for assuring an acceptable standard of performance or to measure the quality of medical care shoul be developed and delivered. Clinical algorithms for STDs and infertility would be considered to developed to screen those patients who need to be referred to specialists in provincial hospitals or centres for sophisticated investigations. The algorithms system provides instructions for gathering and interpreting data. The ability to follow these instructions correctly may reflect throughness and reliability. It is not only the measurement of the accuracy of the observations made by the physician's assistant but also is the responsibility of the physician's assistant who examines the patients.[12]

Although many important questions about clinical algorithms can not be answered at present, it seem to be one possible use of intervention to provide many patients with access to a defined standard of medical care.[13] In general concept, the quality assurance of the medical services comprised 1) standard in personnel 2) standard in facilities and support 3) standard in services (STDs and infertility) and 4) standard in service cost. To acheive the optimal goal, closed observation and monitoring are required.

The peripheral laboratory so need to provide a simplified and

rational approaches to STDs and infertility, and strongly encourage to be used in the primary health care system where the patients come into contact with a health worker for the first time. It is expected that the health worker will have access to a simple microscope which would permit STDs and infertility screening or even diagnosis such as stained smear for identification of STDs pathogens, azoospermia, and post coital test etc.

Conclusion

This study has shown that the quality of primary health care service in STDs and infertility given by health worker was inadequate to cope the prevention and management of STDs and infertility. Selected intervention in STDs and infertility implementations would be considered. The recognition and strengthening the health workers may be possible answer, so need in quality improvement in STDs and infertility practice.

Acknowledgements

We would like to express our gratitude to the Task Force on the Prevention and Management of Infertility, Special Programme of Research, Development and Research Training in Human Reproduction, the World Health Organization for the financial support of the research.

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