

Abstract

This study was designed with the objectives of determining the point prevalence of infertility and describing some characteristics of infertility among fertility-impaired couples resident in the Colombo district. It further compared the health status of primary infertile females with a group of fertile females. Demographic, treatment and infertility related marital and social factors associated with mental health status of primary infertile females were identified. Description of the services provided to fertility impaired couples in curative and preventive sectors in the Colombo district and assessment of client satisfaction of such services were also done.

The study consisted of five components. The first two components comprised a community based cross sectional study with descriptive and comparative components. Three thousand four hundred currently married women in the reproductive age group resident in the Colombo district for no less than six months were selected for the community prevalence survey using a two staged stratified cluster sampling technique. Hundred clusters with 34 respondents in each cluster were selected with probability proportionate to the size of the reproductive age population in the Grama Niladari Divisions. Information was collected on socio demographic characteristics and reproductive health using a pre-tested, pre-coded, structured interviewer administered screening questionnaire to identified primary and secondary infertile couples. The WHO definition of infertility with a one year exposure period was considered in identification of infertile couples. The response rate was 96.97%. Rest of the information was obtained from the identified primary and secondary infertile couples using two interviewer administered questionnaires. GHQ-30 and SF-36 were used to assess the physical and mental health status of primary infertile females.

The point prevalence of the primary infertility was estimated to be 5.52 % among currently married women in the reproductive age group (95 % C.I.- 4.72 % - 6.28 %) in the Colombo district. The point prevalence of secondary infertility among the same base population was 10.07 % (95% C.I. 9.05 % - 11.13 %). Prevalences (both primary and secondary) of infertility were significantly lower in extremes of ages. The prevalences

increased with advancing age at marriage of females. The highest prevalence of infertility was observed among females who were educated beyond A/L and employed. Both primary and secondary infertility were significantly higher in couples in which the males were educated beyond A/L. Secondary infertility was significantly higher among the employed males. The prevalence of secondary infertility was significantly higher among the urban residents.

Of all (both primary and secondary) infertile couples only 52.6 % sought treatment for their infertility problem. A significantly higher proportion (78.5 %) of primary infertile couples had been ever investigated /treated as compared to secondary infertile couples (61.4 %). On average, there was a 24.68 (SD = 22.38) month long waiting time before seeking treatment. The waiting time for primary infertile couples (mean=22.91, SD = 24.90 months) was less than that for secondary infertile couples (mean=26.61, SD=19.15 months).

Infertile couples had sought both medical and non medical care. Six treatment categories were identified (government allopathic, private allopathic, private ayurvedic, government ayurvedic, religious and ritualistic options). The majority of infertile couples (83.9 %) opted for medical measures as the initial mode of treatment. Private allopathic treatment was initial measure adopted by approximately 43 % of infertile couples followed by government allopathic (38 %) treatment and religious methods. The main reason to initiate care with medical measures was 'to find out scientifically whether they are sub fertile and, if so, reasons for delay in child bearing' while that of non medical measures was 'to dispel evil spirits within the body first, as medical measures wont be able to give good results without this'. Both the husband and the wife together took the initiative to seek care among the majority of primary and secondary infertile couples who chose medical methods as the initial option. With regard to non-medical options, the parent's of either male or female partner made the decision.

Primary infertile couples underwent a significantly longer period of treatment (mean=31.17, SD=27.84 months) and had tried a significantly more number of treatment

methods (mean=2.56 methods, SD=1.21) as compared to secondary infertile females. Infertile couples shifted from one treatment method to another. The most preferred sequences of treatment among infertile couples who opted for 2 modes of treatment was from private allopathic to private allopathic and for three modes of treatment, from private allopathic to private allopathic to religious.

Approximately one quarter of infertile couples are currently on treatment, the majority from government allopathic facilities. The main reasons given by primary infertile couples to discontinue treatment /investigation were 'fed up with treatment' and 'wait for natural conception'. Reasons given by secondary infertile couples were husband's unwillingness to continue treatment and fear of investigation procedures.

Among primary infertile couples who were ever investigated /treated, couples with females and the spouses less than 24 years were least investigated/treated as compared to those with older men and women. Among secondary infertile couples, the majority of wives in each age group, except the youngest and oldest, had not been ever investigated/treated. Secondary infertile couples with spouses who had not attended school and who were unemployed were not investigated /treated. When the number of living children increased, the proportion of couples who were ever investigated /treated decreased.

The main reason for not seeking treatment among secondary infertile couples was 'wait and see since there were previous conceptions' (n=144). The reason of the majority of primary infertile couples not seeking treatment was 'too early to go for treatment' (n=21).

Comparison of physical and mental health status of primary infertile females with fertile females revealed that the physical health was not significantly different among the two groups. Mental health was significantly affected in infertile group as measured by both SF-36 and GHQ -30. Infertility status was a significant predictor of all the mental health subcomponent of SF -36 scale after controlling for other basic socio demographic and selected health related factors. 66.1 % (95 % C.I 59.3 % - 72.9 %) of primary infertile

females were psychologically distressed as screened by the GHQ-30. Lower educational status (below O/L), poor marital communication, higher importance given to having children, and whether investigated/treated or not were significant predictors of psychological distress. Primary infertile females who were treated/investigated previously were at a higher risk of psychological distress as compared females on current treatment/investigation or never been treated/investigated. Lower educational status (below O/L) was also a significant predictor of psychological distress.

Component three comprised a qualitative study to describe the impact of infertility on marital and social relationship and the coping mechanisms adopted by primary infertile couples. Thirty (30) in-depth interviews revealed how some of the infertile females were blamed, isolated and harassed for not having children by the husband, other family members, neighbours and friends. Coping mechanisms adopted varied from keeping themselves busy to adoption.

Component four assessed knowledge related to infertility among the selected health care personnel stationed in the Colombo district in preventive (MOH/PHM) and curative sectors (MO in clinics). Knowledge regarding infertility was poor among PHMM especially concerning the definition of infertility, risk factors of infertility, referral time, and describing the proper fertile period. Proper history taking, provision of information and instructions, and follow up were also substandard.

Medical officers working in clinics (mean=58.31, SD=12.52) performed significantly better ($p=0.016$) than MOOH (mean=51.82, SD=9.82). Medical officers working in clinics had a significantly better knowledge of risk factors of infertility, investigation of infertile couples and treatment options than MOOH. MOOH had a significantly better knowledge regarding preparing infertile couples for normal pregnancy than MOO in clinics. Knowledge was significantly lower among the all health staff with 10 years or more of service as compared to staff with less than 10 years service.

Component five assessed client satisfaction among patients attending gynaecology/sub fertility clinics in the district of Colombo. In general 52.7 % of the patients were satisfied with the services provided by the clinic while 13.5 % were dissatisfied. Among the different aspects of the care, the emotional aspect of infertility was ranked as the most important aspect by the majority of patients. Other aspects considered important in rank order were availability of investigation and treatment facilities, provision of information and explanation, and general functioning of the clinic.

The most dissatisfied areas included explaining things (38.9 %), opportunity to ask questions (32.5 %) and emotional support from medical staff (31.2 %). Patients attending sub fertility clinics were more satisfied regarding all aspects of care as compared to couples attending gynaecology clinics. Couples visiting the clinic for the first time were satisfied with all aspects of the clinic except two (patient centered care and doctor's and other staff's attitudes). Satisfaction towards the general function of the clinic was significantly more among patients educated beyond A/L and primary infertile females. Females who were more than 35 years, married for more than 5 years, were primary infertile and accompanied by the husband were more satisfied regarding the attitude of doctors and patient centered care provided by the doctors as compared to their respective comparison group. Patients whose monthly income was higher than Rs. 9.000 were more satisfied regarding the information and explanation received.

Low cost investigations like seminal fluid analysis were not performed in two hospitals within the district of Colombo.

The study highlighted the need of strengthening services for infertile couples at field as well as clinic level, further psychological aspects of infertility should be addressed as part of a more holistic approach to the management of these patients in both field and at clinic. In parallel with that update of knowledge of the health staff is needed.