ABSTRACT

Introduction: Subfertility is an important public health issue that has a wide-ranging socio-cultural and psychological impact. Therefore, access to adequate, comprehensive and quality health services regardless of the couple's economic circumstances becomes imperative.

Objectives: This study assesses treatment-seeking behaviour, patient-centredness of care received and its socio-demographic and subfertility related associated factors, household and government health system cost of subfertile patients attending clinics in Teaching Hospitals in Colombo District.

Methods: This study consisted of four components. The first component, a qualitative study, explored the treatment-seeking behaviour of a purposive sample of 25 subfertile couples attending subfertility clinics at Teaching Hospitals in Colombo, using thematic analysis. The second component culturally adopted the Patient Centredness Questionnaire-Infertility (PCQ-Infertility) using a modified Delphi process, translated it into Sinhala and assessed its judgmental validity. A cross-sectional study among 251 females attending the Subfertility Clinic at Teaching Hospital Mahamodara assessed the factor structure through exploratory factor analysis. The factor structure was confirmed with another cross-sectional study at the same setting among 250 females through confirmatory factor analysis. Test re-test reliability, internal consistency and inter-rater reliability were also assessed. The third component, a cross-sectional study of randomly selected 405 females attending subfertility clinics in Teaching Hospitals in Colombo, assessed the patient centredness of care received, its socio-demographic and subfertility related associated factors and household costs incurred by subfertile patients, using an interviewer-administered questionnaire. Statistical analysis was done using SPSS version 22.0. The fourth component, a descriptive cross-sectional study employing scenario building technique, estimated the government health system cost incurred for subfertility management at Teaching Hospitals in Colombo.

Results: Subfertile couples had sought treatment from various medical systems, including allopathic, Ayurveda, traditional and religious. Allopathic treatment was not the first choice when initiating treatment for most subfertile couples. They had moved between several medical systems and also several practitioners within the same system.

Treatment seeking behaviour of couples had been influenced by the perceptions on subfertility and its cause, availability, accessibility, affordability of services and quality of care.

Validated PCQ-Infertility had 44 items with a seven-factor structure identified after exploratory factor analysis and confirmatory factor analysis with a combination of acceptable fit indices (SRMR of 0.079, CFI 0.862 and RMSEA 0.069). The reliability assessment gave satisfactory results with a Cronbach's alpha value of 0.761.

In the cross-sectional study of patient centredness in care (PCC), the median domain score for 'Information and explanation' was 1.90 (IQR 1.57-2.27), 'Staff communication skills' 2.33 (IQR 2.16-2.33), 'Involvement in treatment' 2.00 (IQR 1.66-2.00), 'Respect values and needs' 1.12 (IQR 0.87-1.25), 'Continuity and transition of treatments', 2.08 (IQR 1.91-2.16), 'Staff competency' 2.00 (IQR 1.85-2.14), and 'Care organization' 2.66 (IQR 2.33-3.00) with a total patient centredness care score of 1.90 (IQR 1.77-2.01). Ethnicity, type of treatment and duration of treatment were the significant associated factors of the patient centredness of care received by female partners of subfertile couples after adjusting for the effects of confounders. Patients incurred costs on medicines and investigations even though government offers free-of-charge services to subfertile patients. The unit cost per household amounted to Rs.6150 (IQR 3335-10180).

Government health system cost per patient assessed for a clinic visit, inward care, operation theatre cost for laparoscopy and dye test and intrauterine insemination were Rs.773.82, Rs. 2870.64, Rs. 3571.81 and Rs. 3816.20 at Colombo South Teaching Hospital and Rs. 1696.30, Rs. 2792.61, Rs. 3243.65 and Rs. 3,753.86 at Castle Street Hospital for Women, respectively.

Conclusions and recommendations: Subfertile couples seek treatment from various medical systems in sequence or concurrently. The adapted Patient Centred Questionnaire-Infertility is s valid and reliable instrument to measure patient-centredness of care received by female partners of subfertile couples. The PCC received by subfertile females was comparatively low with a median total score of 1.90 (IQR 1.77-2.01). Subfertility clinics are encouraged to use this as a tool to assess, improve, and monitor patient centredness of care provided by them by taking into account the domains of PCQ-Infertility. Even though the government health system

bears a substantial amount of cost for the management of subfertility, targeted interventions are required to further reduce the household cost of subfertility. The study findings can be used to improve financial planning, decision making and resource allocation in government hospitals in Sri Lanka.

Key words: subfertility, treatment seeking behaviour, patient centred care, household cost, health system cost