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Working time schedule of midwives in obstetric-neonatal unit versus the level of mother satisfaction with care

The quality of medical care in the management of the systems of health care is no longer a new term (4, 8). Apart from basic indicators of the measures of hospital services, such as the number of hospitalizations, patient-days and procedures performed, two groups of indicators are important. The first is the measurement of individual patient satisfaction, as a measure of expectations of the person hospitalized with respect to a particular institution. The second indicator is a collective opinion concerning the operation of the system of health care.

By narrowing the scope of interest to the measurement of individual satisfaction, it may be noted that studies of this type may serve various purposes. The most important from the aspect of optimization of management is to investigate (often indirectly) an opinion concerning various, frequently hidden organizational deficiencies of a health care unit. Studies of satisfaction may also be an auxiliary tool for evaluation of the staff, and an important guideline with respect to the improvement of the effectiveness of work of therapeutic teams (4, 8).

International and Polish reports show that there are many studies concerning expectations and adding to patient's satisfaction with care, while attempts to evaluate factors influencing the obtaining of satisfaction are too rare (2). Hence, a hypothesis was constructed that the time devoted by midwives to mothers and their newborn children hospitalized in a rooming-in system may be a factor positively (or negatively) correlated with the level of patient satisfaction with care. Therefore, the following research problem was posed: Does the working time schedule of midwives taking care of women after childbirth affect the level of mother satisfaction with care?

MATERIAL AND METHODS

The method of snap-shot (sample) observation was selected for the evaluation of working time schedule. Snap-shot studies are based on the principles of a representative method, calculus of probability and mathematical statistics (5 p.80). The number of observations was determined from the formula $N=4\ (100-P) \times 1/L^2$, where N was an indispensable number of observations, P – percentage value of the smallest fraction in working time schedule, L – absolute error. In studies concerning the organization of work it is assumed that error limits of ±5% are sufficient for the desired accuracy of research (5). In own studies the adopted value of absolute error was ± 2.

The preliminary stage of the studies is continuous observation covering the whole work cycle of the occupational group analysed in order to identify the percentage values of individual types of fractions in their working time schedule (5). Therefore, continuous observations were carried out twice in the

obstetric unit, which covered day duty (7 a.m.–7 p.m.) and night duty (7 p.m.–7 a.m.), and twice made observations in neonatal unit during the same duty hours, in one of the clinics in Lublin in 2003.

The level of mother satisfaction with care was evaluated based on one of the standardized questionnaire forms described in international literature (9, 10). The application of this form will be discussed in a separate article.

RESULTS

Based on 24-hour observations repeated four times in obstetric and neonatal units, 173 work activities performed by midwives from an obstetric unit and 143 from a neonatal unit were selected. These activities were grouped around four main fractions: direct nursing, indirect nursing, coordination and current organization of work, physiological breaks and activities not covered by the scope of duties.

In Fraction I (direct nursing) in the obstetric unit the following six sub-fractions of midwives activities were distinguished, associated with: maintenance of personal hygiene of a mother and the surroundings, nutrition and excretion, mobility of mothers, diagnosing – performed independently or as assistance, treatment – provided independently or as assistance, communication with a mother and her family. Within individual sub-fractions several dozen or less than 10 work activities performed by midwives were distinguished in all the fractions. The following three fractions were classified into indirect nursing (Fraction II): documentation of the nursing process, communication with the staff of the unit or hospital concerning the mother, preparation of all activities and procedures specified in direct nursing. While classifying the activity 'readiness for work during night duty' this work activity was defined as the 'waking state' and classified into Fraction II and the last sub-fraction in this group. Fraction III (co-ordination and current organization of work) covered 4 sub-fractions: providing information within the team, activities connected with provisions for the unit, office-type activities and those associated with cleaning and tidying-up. Fraction IV (physiological breaks and activities not covered by the scope of duties) contained two sub-fractions: physiological breaks and additional activities not included in the scope of occupational duties.

For the purpose of comparison, the names of the main fraction and sub-fractions in the neonatal unit were the same as in the obstetric unit. The differences concerned the essence of activities performed within individual fractions, especially with respect to direct nursing. A division into fractions and sub-fractions, similar with respect to names, was adopted by Lenartowicz while investigating the use of working time among nurses in Polish hospitals (3).

The results of continuous observation showed that in the obstetric unit, Fraction I – direct nursing, occupied 29% of midwives' daily time; Fraction II – indirect nursing – 28%; Fraction III – coordination and current organization of work – 10%; and Fraction IV – physiological breaks and activities not covered by the scope of duties – 33%. In the neonatal unit data concerning individual, the fractions were as follows: Fraction I – 42.5%; Fraction II – 23%; Fraction III – 10% and Fraction IV – 24.5%.

Based on the above-mentioned data it was calculated, using the formula quoted in the methodological section of the article, that 900 observations (N) should be conducted in both obstetric and neonatal units at randomly selected times. Tables of random numbers were used for selection of randomized samples in both units (1).

A detailed analysis of the essence of activities performed by midwives both in obstetric and neonatal units showed that work associated with direct nursing was performed primarily during the period from 7 a.m. – 10 p.m. During the time from 10 p.m. – 7 a.m. dominated activities connected with Fractions II, III, and IV, and only sporadically with Fraction I. The 24-hour observation is important in the determination of working time schedule of midwives with the division into fractions for the needs of calculating the number of snap-observations (N). The period between 10 p.m.–7 a.m., however,

due to the lack of direct nursing, is not directly correlated with the level of mother satisfaction with care. Hence, a random choice of observation times for the needs of determination of the correlation between working time of midwives and mother satisfaction with care concerned the hours of duties from 7 a.m.–10 p.m.

DISCUSSION

The preliminary results of studies of factors influencing the level of satisfaction with care among mothers hospitalized in a rooming-up system indicate that working time of midwives may be one of these factors. Working time schedule in obstetric and neonatal units is unfavourable with respect to direct nursing. The scope of time devoted by midwives to nursing and contact with mothers in obstetric unit is 29% of their total working time. The majority of work activities are those not covered by the scope of duties (33%), compared to direct nursing (29%) and indirect nursing (28%).

Midwives from the neonatal unit devote a slightly greater amount of time to newborn babies (and mothers) – 42.5%. The activities associated with direct nursing of babies are performed in the presence of their mothers, and therefore may positively affect the evaluation of obstetric care. If these activities are performed at a distance from mothers (in treatment rooms), they probably do not directly influence the level of mother satisfaction.

The preliminary working time schedule of midwives obtained is also not complementary with the modern concept of care of mother and newborn, where stress is placed on teaching the mothers self-care of babies (6, 7). This requires a systematic observation of mothers and babies, education, teaching of proper activities, and checking the results. Considering the short period of hospitalization of mothers and babies after a physiological labour and a decreasing population of babies born, and therefore the need for competition between obstetric units, the results of the studies obtained do not favour optimism.

CONCLUSIONS

The results of preliminary studies of working time schedule of midwives employed in an obstetric unit (and neonatal unit) showed that 29% (and 42.5%) of time is devoted to direct nursing; 28% (and 23%) to indirect nursing; 10% to coordination and current organization of work; and 33% (and 24.5%) – to physiological breaks and work activities not covered by the scope of duties. It was observed that the working time schedule of midwives employed in obstetric and neonatal units, working in a rooming-in system, may affect the level of mother satisfaction with care.

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SUMMARY

The majority of studies by international and Polish authors focus on the evaluation of the level of patient satisfaction with health care. A relatively small number of reports concern factors which determine satisfaction. According to the modern approach towards care of mother and baby, a mother hospitalized in a rooming-in system is expected to independently take care of her baby and feed it on demand from its birth. A midwife should teach the mother the nursing of the baby and herself, inform, educate, support and communicate. Such care requires that the majority of time is spent with mothers and their babies. It was assumed that one of the organizational factors determining the level of satisfaction with care may be the time devoted by midwives to mothers. The following research problem was formulated: Does working time schedule of midwives taking care of women after labour affect the level of mother satisfaction with care? The results of preliminary studies showed that the percentage of direct nursing time offered to mothers by midwives in obstetric ward was small (29%), while that devoted by midwives to care of babies in neonatal unit was slightly higher (42.5%).

Struktura czasu pracy położnych na oddziale położniczo-noworodkowym a poziom satysfakcji położnic z opieki

Większość badań autorów zachodnich i polskich skupia się na ocenie poziomu satysfakcji pacjentów z opieki zdrowotnej. Stosunkowo mało jest doniesień na temat czynników determinujących satysfakcję. Zgodnie z nowoczesnym podejściem do opieki nad położnicą i noworodkiem to matka hospitalizowana w systemie *roomig-in* ma od urodzenia dziecka samodzielnie się nim opiekować i karmić na żądanie. Położna powinna ją nauczyć pielęgnacji noworodka i siebie, asystować przy pierwszych samodzielnie wykonywanych czynnościach, informować, edukować, wspierać, rozmawiać. Taka opieka wymaga, aby większość czasu spędzać z matkami i ich dziećmi. Przyjęto, że jednym z organizacyjnych czynników determinujących poziom satysfakcji z opieki może być czas, jaki położne poświęcają położnicom. Sformułowano pytanie problemowe: czy struktura czasu pracy położnych opiekujących się kobietami po porodzie ma wpływ na poziom satysfakcji położnic z opieki? Wyniki wstępnych badań wskazują na stosunkowo niewielki odsetek czasu bezpośredniej pielęgnacji (29%), oferowany matkom przez położne oddziału położniczego i nieco większy (42,5%) w ramach pielęgnacji poświęcony noworodkom przez położne zatrudnione na oddziale noworodkowym.