Job Satisfaction of Midwives in the Context of a Midwife-Led Project – A Repeat Measure Mixed Methods Study

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Abstract

Background: Job satisfaction of midwives is important to prevent skill shortage. Those working in midwife-led models of care were more satisfied than those working in standard care. Job satisfaction in the context of a midwife-led project was not researched previously. The aim of this study was to investigate job satisfaction before and after the implementation of a midwife-led intervention.

Methods: Longitudinal observational study at three time points using quantitative and qualitative methods. A total of 43 midwives working in the labour ward participated in the online surveys and 5-7 in the focus group discussions. The surveys comprised questions from validated instruments. Descriptive and multivariable time series analysis were used for quantitative and content analysis for qualitative data.

Results: Adjusted predicted scores decreased between t_0 and t_1 and subsequently increased at t_2 without reaching baseline values (e.g. 'professional support subscales': between t_0 and t_1 : (0.65, 95% CI [0.45, 0.86] versus 0.26, 95% CI [0.08, 0.45], $p=0.005$) and t_0 and t_2 (0.65, 95% CI [0.45, 0.86] versus 0.29, 95% CI [0.12, 0.47], $p=0.004$). Focus group discussions revealed three themes: "Job satisfaction", "Challenges with the implementation" and "Continuity of care". Midwives perceived the additional tasks as stressors.

Conclusion: The implementation of new interventions might increase work related stress and decrease job satisfaction in an early phase. This effect was stronger than the one of acquiring more autonomy and responsibility. Heads of institutions and policy makers should recognise the needs of support and additional resources for staff when planning new projects.

Background

Job satisfaction of midwives depends on their working environment and could be improved by increasing opportunities to use acquired knowledge and skills. Studies have shown that positively experienced workplace qualities and occupational satisfaction enhance the chances that midwives remain in their professions and consequently prevent skill shortage [1, 2]. In contrast, work-related stress was found to be negatively associated with job satisfaction but positively with the intention to leave the work place [3].

In a literature review, Bloxsome et al. [1] investigated factors which supported midwives' career longevity and found that working relationship with colleagues, supervisors and women, the pleasure of caring for mothers and babies, manageable working hours and a good salary were important aspects. The feeling of accomplishing high quality of care increased job satisfaction of Danish midwives [4]. However, professional activities of midwives were associated with substantial work-related stress [5, 6]. In Germany, over 40% of midwives were unsatisfied with the recognition of their work and a third with the compatibility of family life with work [6]. More than a fifth would not or rather not choose their profession again. Some studies showed differences in job stressors according to the work place [5, 7]. For hospital midwives, stressors were related to working hours per week, workplace agreements, workload, and the lack of recognition by the medical staff and for primary care midwives to social support at work, work demands, job autonomy and compatibility with family life [5, 7].

Sandall et al. [8] showed that midwife-led continuity of care enhanced job satisfaction and was associated with positive outcomes for mothers and children. It might also be cost saving [9]. Midwife-led care is woman-centred and fosters continuity of care and means autonomous and self-responsible work for midwives with the opportunity to use full scope of practice [8, 10, 11]. These models of care were also associated with a supportive practice climate [12]. As midwife-led care is rare in many countries [10, 11, 13–15], a minority of midwives are working under such circumstances. Midwives working in standard models of care also fulfil to some extent self-responsible tasks [11] or conduct midwife-initiated projects.

Similar to other countries, Swiss midwives recognised their workload, content of work, lack of recognition from doctors, compatibility of family life and work and working hours as important job-related stressors [5]. Midwife-led models of care are rare in Switzerland [10, 11, 16], although positive aspects are recognised by women and health care providers [16]. No study investigating job satisfaction in the context of midwife-led care or midwife-led projects has been conducted in Switzerland before.

It remains unclear whether midwife-led projects have had an impact on the job satisfaction. The aim of this study was therefore to assess job satisfaction before and after the implementation of a midwife-initiated and led intervention.

Methods

Study design, setting and context

We conducted a prospective longitudinal observational study using quantitative and qualitative methods. Data was collected at three time points in 2018 before and after the implementation of a midwife-led project in a Swiss university hospital. The project was initiated and led by midwives and consisted of telephone debriefing sessions. This involved all women being called approximately six weeks after birth by the midwife who provided intrapartum care to clarify open questions about birth [17]. The project considered the main characteristics of midwife-led care that it fostered continuity of care, was woman-centred and was initiated by the midwives and their responsibility. However, it concerned only a small part of maternity care.

Sampling

The study population included all midwives working in the labour ward and caring for childbearing women. The exclusion criterion was being engaged exclusively with managerial responsibilities ($n = 1$). A full census was targeted with a total of $N = 50$ midwives who could participate at least at one time point. Thereof, $n = 43$ midwives formed the study sample, of whom 19 completed all three questionnaires, 14 two and ten one questionnaire. Response rates for the online surveys were 85.4% ($n = 35$), 75.0% ($n = 30$) and 66.7% ($n = 30$). Participants of the focus group discussions originated from the same study population.

Data collection

Data was collected at three time points: before the implementation of the telephone debriefing sessions as well as two and seven months afterwards. At each time point, an online questionnaire was sent to all eligible midwives and a focus group discussion was conducted.

The online surveys were based on different validated instruments to assess job satisfaction [18–21]. In particular, the German version of the midwifery specific instrument to assess job satisfaction from Turnbull et al. [18, 22], selected questions of the German version of the Copenhagen Psychosocial Questionnaire (COPSOQ) [23], self-translated questions of the domain 'decision authority' of the Leiden Quality of Work Life Questionnaire for Nurses (LQWLQ-N) [19] as well as socio-demographic questions of the STRAIN-project were included [24].

In the focus group discussions, the themes of the subscales of the instrument of Turnbull et. [18] ('professional satisfaction', 'professional support', 'client interaction' and 'professional development'), 'decision authority' of the Leiden Quality of Work Life Questionnaire for Nurses (LQWLQ-N) [19], continuity of care [25] as well as questions regarding the conduct and organisation of the telephone debriefing sessions were incorporated in the semi-structured interview guide.

The study was approved by the Ethics Committee of the Canton of Zurich in Switzerland (BASEC-NR. Req-2017-00133).

Data preparation and analysis

Quantitative data of the three online questionnaires were merged using an anonymised ID-code. For categorical variable absolute and relative frequency and for metric variables mean, median, range and standard deviation were computed as appropriate. Scores of validated instruments were calculated as proposed by their developer. Repeatedly measured categorical variables with more than two categories were compared using Skillings–Mack tests. Generalised estimating equation (GEE) models of the Gaussian family with robust standard errors and with log link were used to assess adjusted temporal trajectories of instrument scores. Corresponding point estimates with 95% confidence intervals were reported. Statistical significance was established at $p < 0.05$. Stata Version 13 (StataCorp, College Station, TX, USA) was used for all statistical analyses.

Focus group discussion were transcribed verbatim and analysed using qualitative content analysis methods according to Kuckatz [26]. Deductive and inductive coding were applied and codes were grouped into themes. Code and theme names as well as citations were translated into English and translations were checked by a German and an English native speaker. Qualitative data was analysed using Atlas.ti 8.

Results

Characteristics of participants

The median age of participants of the surveys was 33.5 years (range = 25.0–64.0 years, Table 1). Two third of the midwives ($n = 28$) were born in Switzerland and more than half had a Bachelor's degree ($n = 24$). The midwives had worked for a median of 9.2 years in the profession.

Table 1
Characteristics of participants

Variable	Participants n = 42 ¹
Age, md (min-max)	33.5 (25–64)
Country of birth	28 (66.7)
Switzerland, n (%)	6 (14.3)
Germany, n (%)	2 (4.8)
Serbia, n (%)	1 (2.4)
Italy, n (%)	5 (11.9)
Other, n (%)	
Living in Switzerland	3 (21.4)
< 5 years, n (%)	4 (28.6)
5–14 years, n (%)	2 (14.3)
15–24 years, n (%)	3 (21.4)
25–34 years, n (%)	2 (14.3)
≥ 35 years, n (%)	
Education	13 (30.1)
Vocational training, n (%)	24 (57.1)
Bachelor's degree, n (%)	5 (11.9)
Master's degree, n (%)	
Work years in health sector, md (min-max)	14.5 (4–43)
Work years as a midwife, md (min-max)	9.2 (0.2–43)
Work years at USZ ² , md (min-max)	9.5 (0.2–37.5)
Workload	1 (2.3)
< 50% of full time equivalent, n (%)	12 (27.9)
50–70% of full time equivalent, n (%)	30 (69.8)
80–100 of full time equivalent, n (%)	
¹ Missing values for n = 1 participant; ² USZ-University hospital of Zurich	

Job situation

Midwives indicated caring for a median of three women during one shift. Six midwives (14.3%) stated that they sometimes or often needed to work overtime. All the midwives working overtime rarely, sometimes or often (n = 24) were able to record these extra hours. Almost half of them (n = 11, 45.8%) could compensate time during the same month and two participants (8.3%) mentioned that overtime was paid. Nearly all midwives (n = 37, 97.4%) worked in shifts and most of them (n = 29, 78.4%) worked all shifts (early, late and night shift). In a median, participants worked five night shifts per month (range = 0–6).

Attitude toward telephone debriefing

More than half of the midwives had an open attitude towards the telephone debriefing sessions before their implementation (54.3% absolutely or mostly agreed at t_0 , Table 2). The proportion of midwives recognising the telephone debriefing sessions as an additional stress increased slightly without significant difference between t_0 , t_1 and t_2 . However, participants acknowledging the project being important for the women decreased significantly between t_0 and t_2 ($p = 0.035$).

Table 2
Attitude toward telephone debriefing before and after the implementation of the telephone debriefing sessions

Question	Before implementation of debriefing sessions (t ₀) n = 35	2 months after implementation of debriefing sessions (t ₁) n = 30	7 months after implementation of debriefing sessions (t ₂) n = 30
<i>I have an open attitude towards the telephone debriefing sessions</i>	9 (25.7)	11 (36.7)	10 (33.3)
Absolutely, n (%)	10 (28.6)	10 (33.3)	8 (26.7)
Mostly, n (%)	14 (40.0)	8 (26.7)	11 (36.7)
Partly, n (%)	2 (5.7)	1 (3.3)	1 (3.3)
Not at all, n (%)			
<i>Contacting women at home is an additional stress for me</i>	9 (25.7)	9 (30.0)	8 (26.7)
Absolutely, n (%)	8 (22.9)	5 (16.7)	11 (36.7)
Mostly, n (%)	10 (28.6)	11 (36.7)	7 (23.3)
Partly, n (%)	8 (22.9)	5 (16.7)	4 (13.3)
Not at all, n (%)			
<i>Debriefing sessions with the midwife who attended birth are important for women</i>	11 (31.4)	5 (16.7)	2 (6.7) ^{a*}
Absolutely, n (%)	15 (42.9)	15 (50.0)	15 (50.0)
Mostly, n (%)	8 (22.9)	10 (33.3)	13 (43.3)
Partly, n (%)	1 (2.9)	0	0
Not at all, n (%)			
^a significant difference between t ₀ and t ₃ ; *p < 0.05			

Development of job satisfaction of midwives

The midwife-specific instrument [18] showed a decrease and subsequently increases in the mean of the 'Professional satisfaction subscale', the 'Professional support subscales' and the 'Professional support' between t₀ and t₁ respectively t₂ (Table 3). The mean scores of the 'Client interaction subscale' in contrast, increased slightly between t₀ and t₁ and more clearly between t₁ and t₂.

Table 3
Job satisfaction before and after the implementation of the debriefing (Turnbull et al. 1995)

Question Coding – 2 to + 2	Before imple-mentation of debriefing sessions (t ₀) n = 35 mean (SD)	2 months after implementation of debriefing sessions (t ₁) n = 30 mean (SD)	7 months after implementation of debriefing sessions (t ₂) n = 30 mean (SD)
<i>Professional satisfaction subscale</i>			
Generally speaking, I am satisfied with my current role as a midwife	1.34 (0.76)	1.10 (0.76)	1.30 (0.53)
I feel I am in a rut ¹	0.17 (1.27)	0.23 (1.14)	0.47 (1.01)
I feel frustrated with my current role ¹	0.91 (0.92)	0.73 (0.83)	0.97 (0.67)
I have enough opportunities to make decisions about care	0.20 (0.93)	0.13 (0.78)	0.40 (0.77)
I have limited opportunities for professional development ¹	0.46 (1.17)	0.33 (1.03)	0.13 (1.04)
I am confident that I have the skills for my current role.	1.54 (0.78)	1.43 (0.57)	1.60 (0.56)
Mean professional satisfaction	0.77 (0.59)	0.66 (0.56)	0.81 (0.43)
<i>Professional support subscale</i>			
I have enough time to give women the care they need	0.14 (0.94)	-0.13 (1.14)	0.17 (0.91)
I get professional support from my midwife colleagues	1.46 (0.56)	1.23 (0.43)	1.33 (0.48)
I get enough support from other clinical colleagues (e.g. GPs and obstetricians)	0.63 (1.00)	0.47 (1.04)	0.73 (0.74)
There is not enough time to do my job properly ¹	0.83 (1.12)	0.43 (0.90)	0.33 (1.15)
My current role is very stressful ¹	0.11 (1.02)	-0.17 (0.79)	-0.27 (0.74)
Mean professional support	0.63 (0.55)	0.37 (0.50)	0.46 (0.52)
<i>Client interaction subscale</i>			
My current role allows me to provide women with choice about their care	0.29 (0.96)	0.20 (0.85)	0.43 (0.86)
My current role allows me to plan care with women	0.51 (0.85)	0.50 (0.86)	0.53 (0.78)
I need greater scope to provide women with information about their care ¹	-0.46 (0.89)	-0.33 (0.99)	0.10 (0.92)
I have limited opportunities to provide women with individualised care ¹	-0.17 (1.01)	-0.20 (0.89)	0.07 (0.91)
I have limited opportunities to provide continuity of care ¹	-0.46 (0.98)	-0.30 (0.88)	-0.27 (0.87)
Mean client interaction	-0.06 (0.76)	-0.03 (0.55)	0.17 (0.64)
<i>Professional development subscale</i>			
I have enough professional independence	0.26 (1.01)	-0.13 (0.90)	0.03 (0.89)
I have few opportunities to develop my skills as a midwife ¹	0.74 (1.04)	0.83 (0.91)	0.57 (1.07)
I have plenty of opportunities to further my professional education	0.89 (0.96)	0.83 (0.87)	0.43 (1.01)
I lack professional support from my managers ¹	1.49 (0.89)	1.20 (1.10)	1.57 (0.77)
Mean professional development	0.72 (0.70)	0.44 (0.66)	0.52 (0.55)
¹ Negative questions, which were recoded. Higher values signify higher satisfaction			

Repeat measure prediction for scores of subscales were adjusted for age, work years in the institution, number of women cared for per shift and workload. The adjusted predicted scores of the 'Professional satisfaction subscale' neither differed significantly between t_0 and t_1 (0.71, 95% CI [0.53, 0.88] versus 0.69 95% CI [0.49, 0.89, $p = 0.906$) nor between t_0 and t_2 (0.71, 95% CI [0.53, 0.88] versus 0.74, 95% CI [0.55, 0.94], $p = 0.745$, Fig. 1). In contrast, those of the 'Professional support subscales' declined significantly between t_0 and t_1 (0.65, 95% CI [0.45, 0.86] versus 0.26 95% CI [0.08, 0.45], $p = 0.005$) and t_0 and t_2 (0.65, 95% CI [0.45, 0.86] versus 0.29, 95% CI [0.12, 0.47], $p = 0.004$). Regarding the 'Client interaction subscale', the adjusted predicted scores did not differ significantly either between t_0 and t_1 (-0.01, 95% CI [-0.22, 0.20] versus -0.01, 95% CI [-0.25, 0.23], $p = 0.995$) or between t_0 and t_2 (-0.01, 95% CI [-0.22, 0.20] versus 0.09, 95% CI [-0.14, 0.32], $p = 0.460$). A significant decrease was also observed for the adjusted predicted scores of the 'Professional development subscale' between t_0 and t_1 (0.77, 95% CI [0.55, 0.99], versus 0.40, 95% CI [0.15, 0.64], $p < 0.001$) as well as t_0 and t_2 (0.77, 95% CI [0.55, 0.99] versus 0.41, 95% CI [0.17, 0.64], $p < 0.01$).

Other job and occupational related factors

Significant differences were found for adjusted predictions for the 'Meaning of work' subscale of the COPSQ, which were lower at t_1 compared to t_0 and for the 'Job satisfaction' subscale, which showed a decrease between t_0 and t_2 (Table 4). The 'Intention to leave the profession' subscale increased significantly between t_0 and t_2 .

Table 4
Results of adjusted work-related assessments before and after the implementation of the debriefing

Question	Before imple-mentation of debriefing sessions (t_0) n = 35	2 months after implementation of debriefing sessions (t_1) n = 30	7 months after implementation of debriefing sessions (t_2) n = 30
LQWLQ-N¹			
Subscale "Autonomy", AP ² [95% CI]	2.6 [2.6, 2.8]	2.6 [2.4, 2.7]	2.5 [2.4, 2.7]
COPSQ³ (from 0='to a very small extent' to 100='to a very large extent')			
Meaning of work, AP ² [95% CI]	87.4 [82.9, 91.9]	80.8 [75.7, 85.9]	83.9 [79.0, 88.8] ^{a*}
Bond with organisation, AP ² [95% CI]	65.3 [59.9, 70.6]	61.7 [55.7, 67.8]	64.0 [58.2, 69.8]
Work privacy conflict, AP ² [95% CI]	34.7 [28.3, 41.0]	36.3 [29.3, 43.2]	34.4 [27.7, 41.0]
Demarcation, AP ² [95% CI]	26.5 [20.1, 32.9]	30.1 [22.9, 37.4]	20.8 [13.9, 27.7]
Job satisfaction, AP ² [95% CI]	65.7 [61.1, 70.2]	63.3 [58.3, 68.4]	60.2 [55.4, 65.1] ^{b*}
Intention to leave the organisation, AP ² [95% CI]	17.1 [11.0, 23.2]	18.4 [11.5, 25.3]	21.1 [14.4, 27.8]
Intention to leave the profession, AP ² [95% CI]	11.3 [5.9, 16.7]	9.8 [4.0, 15.6]	17.5 [11.5, 23.4] ^b

¹ LQWLQ-N = self-translated Leiden Quality of Work Life Questionnaire for Nurses; ² AP [95% CI] = adjusted predictions with corresponding 95% confidence interval; ³ COPSQ = Copenhagen Psychosocial Questionnaire; a significant adjusted difference between t_0 and t_1 ; ^b significant adjusted difference between t_0 and t_3 ; * $p < 0.05$; ** $p < 0.001$

Figure 1: Adjusted trajectory of sub scores over measurements

Focus group discussions

A total of eleven midwives participated in one or two of the three focus group discussions, seven in the first, five in the second and seven in the third one. The focus group discussions revealed three themes, which were important for the job situation: "Job satisfaction", "Challenges with the implementation" and "Continuity of care".

The theme "Job satisfaction" comprised general aspects. Most midwives mentioned being very satisfied with their job. Having a secure job and working in a good team were experienced as very important factors.

"I experience that we are a really good team and help each other..." (before the implementation)

Factors negatively affecting job satisfaction were working shifts but also the request to complete an increasing number of tasks. A trend toward negative quotations was higher two and seven months after the implementation of the debriefing session, when interviews were conducted during periods with high workloads.

"Working shifts makes it nearly impossible to work 100 percent. Thus, working several years full time and keep the social environment intact is not possible." (two months after the implementation)

Regarding the "Challenges of the implementation", midwives highlighted the additional workload of conducting the telephone debriefing sessions, which should be completed during their working time. They experienced it as stressful, but even so, some of them point out the good feeling it gives them afterwards.

"Once I've done it, I'm happy about it, but it is the same as for her (comment: name of the colleague), that it is always breathing down my neck." (two months after)

The organisation of the telephone debriefing sessions was especially challenging. Women were difficult to reach, and several calls or emails were needed to make contact. Midwives also pointed out their need to know if women profited from the telephone calls in order to find a sense in the additional workload.

"This (comment: the debriefing sessions) is really difficult to plan, this is a major challenge for me." (seven months after)

"Continuity of care" was a controversial issue. Many participating midwives worked in a university hospital because they wanted demarcation from work. However, seven months after the implementation of the telephone debriefing sessions, some midwives came to appreciate the follow-up contact with the women which rounded off their care.

"And then, I'm coming back again after two, three months (...) This is nice for me, that work is not already finished but we return to the birth situation." (seven months after)

Discussion

To our knowledge, this was the first study investigating job satisfaction of midwives in the context of a midwife-led project. Quantitative and qualitative data revealed that additional tasks increased work-related stress in the short term.

In contrast to studies investigating job satisfaction of midwives working in midwife-led models of care [8], our study did not show an increase in satisfaction but a decrease in the first phase followed by an increase which did not reach the baselines values. Even though the implementation of the telephone debriefing sessions comprised elements of midwife-led care such as fostering continuity of care as well as being initiated by the midwives and in their responsibility, the changes in the work situation were less substantial. However, the additional tasks lead to an increased workload and decreased satisfaction, and confirmed the results of other studies that workload is a potential work-related stressor for midwives [5, 7, 27]. The results of the current study were also consistent with those of one, which showed dissatisfaction in situations where additional tasks led to a very high workload [28].

The longitudinal character of our study might have added as a new aspect the development of job satisfaction in a very early phase of the implementation of an intervention. Two months after starting the telephone debriefing sessions, the organisational aspects had priority and many midwives were not able to acknowledge the benefits of the project. This might be one of the causes for the initial decrease and subsequent increase of job satisfaction during the study period. Midwives might have needed time to recognise the benefits of the intervention. A Danish study showed that providing high-quality care led to an increased job satisfaction [4]. Interviews with the users of the telephone debriefing sessions in our study emphasised the satisfaction of women and their benefits of processing birth [17]. It might be that it was too early to estimate the long-term development of job satisfaction seven months after the implementation of the debriefing sessions. Future study should plan longer follow-ups.

Strengths of our study were the use of questions from validated instruments combined with qualitative data from focus group discussions. Quotations of midwives provided a deeper insight leading to explanations for some quantitative findings. However, the small sample size, which was due to the limited number of midwives working in the same hospital, was a limitation. Additionally, the single centre study might not have provided results which can be generalised for other settings. Midwives working in larger maternity units might not have the same interest in continuity of care as those working in smaller ones. During the study phase, which lasted nearly one year, staff turnover was observed causing incomplete follow-up data as well as new participants. Additionally, the chances of changing external factors such as periods with higher and lower workloads or new regulations were also increased due to the duration of the study.

Conclusion

Our study showed a decreased job satisfaction in the early phase of a new project. This effect was stronger than the one of acquiring more autonomy and responsibility. This knowledge is important for heads of institutions and policy makers, because strategies to support midwives during implementation phases and additional resources might be necessary to prevent decreased job satisfaction. It remained unclear how satisfaction of midwives would develop during a longer time period. Future studies should investigate job satisfaction in the context of midwife-led projects in larger samples and different settings and consider a longer follow-up.

Abbreviations

AP

Adjusted prediction; CI:Confidence interval; COPSQ; Copenhagen Psychosocial Questionnaire; LQWLQ-N:Leiden Quality of Work Life Questionnaire for Nurses; SD:Standard deviation

Declarations

Ethics approval and consent to participate

All participants received written and oral information about the aim and the procedure of the study and gave written consent. The study was approved by the Ethics Committee of the Canton of Zurich in Switzerland (BASEC-NR. Req-2017-00133).

Consent for publication

Not applicable

Availability of data and materials

The datasets generated and analysed during the current study are not publicly available due to the sensitive nature of qualitative data from but are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

SG-B, JP-M, RA and BMK designed the study, SG-B, JP-M, RA, BMK and BG were involved in the data collection, SG-B, TV and VL analysed data, SG-B drafted the manuscript and all authors revised and approved the article before submission.

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Figures

Figure 1

Adjusted trajectory of sub scores over measurements