Complementary elements of support after gastric-bypass surgery perceived by adults with previous type 2 diabetes: A qualitative study 2 years after bariatric surgery

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Summary

Bariatric surgery is the most medically and cost-effective treatment for adults with obesity and type 2 diabetes mellitus (T2DM). Our findings suggest initial improvements in health-related quality of life that may decline as support from follow-up care ends. How patients experience long-term support is not well described. This study therefore aimed to investigate how adults with previous T2DM perceived different sources of support 2 years after bariatric surgery. In this qualitative study, individual interviews were conducted with 13 adults (10 women) 2 years after surgery. Using thematic analysis, one overarching theme (compiling complementary elements of support after gastric-bypass surgery), four themes and nine subthemes emerged. The results show that support was given and received from various sources, support needs varied over time depending on where the patient was in the process and that the sources of support were complementary. To conclude, our results show that support needs change in adults who have undergone bariatric surgery. Long-term professional and day-to-day support from family and other networks are essential and complementary elements of support. Healthcare staff should consider these findings, especially during the early follow-up period.

KEYWORDS

gastric by-pass, psychosocial needs, qualitative, support

What is already known about this subject

- Patients who consider undergoing bariatric surgery need to be informed about the benefits and challenges and side-effects of the surgery.
- Patients need to receive appropriate and long-term support from healthcare authorities.
- How patients experience long-term support is not well described in the research literature.

What this study adds

- Relevant support may be given and received from various complementary sources.
- Support needs vary over time depending on where the patient is in the process.
1 | INTRODUCTION

In the past three decades, the prevalence of type 2 diabetes has risen dramatically to about 422 million people worldwide. The majority have type 2 diabetes mellitus (T2DM), largely as the result of excess body weight and physical inactivity. In Sweden, 22% of the adult population are estimated to have obesity and 6%–7% to have T2DM. Bariatric surgery is increasingly proposed as the most effective and cost-effective treatment for adults with obesity and T2DM. However, indications for when surgery should be recommended in patients vary. In Sweden, recent national guidelines for obesity care suggest that surgery can be recommended in adults with T2DM with a body mass index (BMI) ≥35 kg/m². When criteria for surgery are met, bariatric surgery is included in the publicly funded health care system in Sweden which means a very low cost for the patients. One of the most often used surgical procedures is the Roux-en-Y gastric bypass (RYGB), which also has been considered a more effective approach in co-existing obesity and T2DM.

RYGB results in large and lasting weight loss and improved cardiovascular risk factors. Early and vast improvements in glycemic control often lead to T2DM remission. However, more long-term data are needed to study the durability of remission. It has also been suggested that patients experience improvements in general quality of life (QoL). The improvements have primarily been seen in physical health and well-being, which seem to last over time. The long-term effects are more complex for mental and psychosocial health domains.

A review from 2021 suggests that the first 12–24 months after surgery is a ‘honeymoon phase’. The review noted that besides the fast change in body weight and medical risk factors, this phase is often associated with improvements in overall health-related QoL (HRQoL), psychological well-being, self-esteem and body image. However, the positive effects may decrease over time and when support from follow-up ends. Studies have shown an increased long-term risk for alcohol abuse, depression and suicide. A meta-analysis from 2016 argued that there is moderate evidence of improvements related to depression during the first 3 years after surgery but that the quality of evidence is low on the long-term effect on many mental health conditions.

In 2017, qualitative studies on patient perspectives after bariatric surgery were synthesized in a systematic review. The review reported that life is affected in various ways, both positively and negatively, in areas covering daily life activities, body image and body weight, sexual life, social relations, physical and psychological health, eating behaviour and a person’s relationship with food. Those who had undergone surgery sought to improve control and normality, but the surgery led to several complex changes that required constant adaptation and negotiation. Thus, it was stated that patients who consider surgery need to be aware of and informed about the benefits, challenges, and side effects that can last over time, as well as the need to sustain life changes. To maintain those changes individuals must receive appropriate and long-term support from health care professionals.

In a 2019 review, the need for support from healthcare workers during the early years after surgery was found to decline for some patients. However, the need for support increased or changed for others as the honeymoon period ended (i.e., their weight loss tapered significantly or they regained weight). The authors of the review found a need to offer more realistic preoperative information and prolonged follow-up and non-judgmental support focusing on behaviour change, individual needs, and weight maintenance. However, they also concluded a need for more long-term qualitative research on what type of long-term support is provided in different contexts, how individuals undergoing bariatric surgery experience the support, and what available support they did not receive.

A systematic literature review from 2022 generally showed good long-term results regarding quality of life. However, it was shown that some participants did not achieve expected results either in terms of HRQoL or weight loss. These patients should be offered psychological intervention, which is likely to further improve the results of bariatric treatment. Similar results were shown in a 3-year follow-up study in 2022.

A UK study confirmed the wish for more psychological support related to, for example, eating behaviour. The study reported that beneficial aspects of follow-up care included routine monitoring of medical outcomes, meeting with the same healthcare professional at appointments, and contacting a key health professional when needed using a contact option suitable for the individual. They also reported a long-term sense of abandonment after specialist care ended and primary care could not provide the necessary support. In addition, they outlined how peer support is an important source of support. A study with participants from Australia and the US reported that attending psychological counselling sessions after surgery positively impacted physical and mental well-being.

This study is part of a randomized controlled trial (RCT; ClinicalTrials.gov Identifier NCT02729246), including adults who, before bariatric surgery, had obesity and T2DM. The RCT mainly focused on physiological changes after surgery while also considering patient perspectives.
new eating habits, become more physically active and participate in social life. Nevertheless, previous studies have called for more qualitative research focusing on patient experiences related to support from a long-term perspective. Based on the same qualitative interviews as in the previous sub-study, this study investigated how adults previously diagnosed with T2DM perceived different sources of support 2 years after bariatric surgery.

2 | MATERIALS AND METHODS

2.1 | Design

This study used a descriptive qualitative design with individual interviews. Qualitative research is used in health care, for example, to understand patterns of health behaviours and lived experiences. Qualitative research can provide in-depth insights into patients' experiences and capture changing attitudes in a target group.

2.2 | Participants and setting

Participants were the 13 patients with T2DM and obesity (10 women/3 men) included in the surgery group of an RCT conducted at the publicly funded University Hospital in Uppsala, Sweden. All participants were invited and voluntarily consented to participate in individual interviews in April 2019, 2 years after surgery. Inclusion criteria were men and women aged 18–60 years with obesity (BMI 30–45) in combination with T2DM diagnosed no more than 10 years from the study start and treated with 0–3 oral antidiabetic drugs, but not insulin. Patients with serious diabetic complications (proliferative retinopathy, renal failure), previous cardiovascular events, stroke, sleep apnea or a history of alcohol or drug abuse were excluded from the trial. Of the 13 participants, 12 had antidiabetic treatment before surgery. Four weeks after surgery, 11 patients had discontinued their antidiabetic treatment following improvements in glycaemic control. At 24 weeks and 104 weeks, two and four participants, respectively, were treated with antidiabetic agents. Mean BMI had decreased from 36.8 kg/m² at baseline to 28.6 kg/m² after 2 years of surgery. Mean age at baseline was 55 (±9) years.

2.3 | Data collection

Individual interviews were conducted in quiet rooms at the hospital (n = 11) or by telephone (n = 2) with only the interviewer (ER) and the participant present. The interviews followed a study-specific and semi-structured interview guide, see Appendix, complemented with probing questions (“Could you please tell me more about...”) to explore the participants’ comments further. The length of the interviews ranged from 0.5 to 1.5 h. The interviews were conducted once with each participant, audio-recorded, and transcribed verbatim by a medical secretary.

2.4 | Data analysis

All transcribed data were analysed using thematic analysis, a method for identifying, analysing, and reporting repeated patterns (themes) across a data set. The interviews were analysed by two of the present authors (ER, MSE), starting by separately reading the transcripts several times to obtain an overview of the content. Sentences that were related to support were highlighted. ER and MSE deemed data to be nuanced with rich descriptions and that saturation was reached because the content of the themes was recurring among transcripts. During the process of analysis, we had enough data to describe the support and no new aspects were discovered.

In the second phase text, segments related to support were labelled with describing codes using wordings staying close to the data. In the third phase, when all the interviews were coded, the codes were extracted, jointly reviewed, and clustered into sub-themes based on their similarities and differences. The sub-themes identified from the codes were then repeatedly discussed and refined. In the last step of the analysis, the themes based on sub-themes were reviewed, compared to the codes, and discussed among the authors. The analysis was conducted manually in a word-processing program; no special analytical software was used.

2.5 | Ethics approval

The study was approved by the Research Ethics Committee at Uppsala University (2014/255) and complied with the Declaration of Helsinki. All participants gave their written informed consent after they had been written and orally informed about the study's purpose, that participating in the study was voluntary, and that they could terminate participation without consequences.

3 | RESULTS

The overarching theme—Compiling complementary elements of support after gastric-bypass surgery—comprises the four themes in which the nine identified sub-themes were clustered (Table 1). The themes and sub-themes are presented in the following sections, illustrated with quotations identified from the participants' original code numbers.

3.1 | Self-support management and family support

3.1.1 | Self-support and patient strategies to adapt to changes

Participants expressed the value of learning new strategies to support themselves to keep up with the bodily changes and implement the new lifestyle needed after surgery. One concrete strategy to facilitate eating regularly was to set reminders on the cell phone. Other facilitating plans aimed to visualize weight loss and understand the new...
Overarching theme, themes and sub-themes based on data from 13 interviews.

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<th>Overarching theme</th>
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<td>Themes</td>
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<td>Sub-themes</td>
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The surgery and life after surgery affected the whole family’s eating habits. Supportive actions from family members could be to show that they noticed the weight loss by confirming and reflecting on the new body with encouraging comments. Other important supportive measures were related to the demand for learning and maintaining new eating habits. Family members could accompany them to health care visits and help them remember all the advice given on different topics (e.g., nutrition). Family members could also help remind the participants to eat smaller portions more often throughout the day. Several participants underlined it was seldom a problem to be offered food within the family because family and close relatives knew they could only eat small amounts of food.

### 3.2 | Support in working and social life

#### 3.2.1 | Employer adjustments

Participants witnessed that the surgery had positively affected their work capacity, largely because they felt healthier and more energized. Working hours had been extended for part-time workers, part-time sick leave had been reduced, and some participants had returned to working life after full-time sick leave. However, support was needed regarding adjustments in the working schedule and endorsed opportunities to take breaks and eat regularly. The participants found it important to talk to their employers about their needs; many felt that they had been met positively and listened to and that the employers had facilitated necessary adjustments. The adjustments, support and encouragement from the employers could be the difference between part-time and full-time or between sick leave and working again:

> I was on long-term sick leave before I had the operation. Now I work 3 hours a day and it works well. (016)

#### 3.2.2 | Support from co-workers and friends

Social life and contacts did not change for those participants who were socially active before surgery. However, surgery and subsequent weight loss could also positively change the social life of those who were not socially active before surgery.

> I think my social life has been positively affected and I have more energy. I want to do fun things. (019)

body by recording concrete changes such as smaller clothing sizes, measurements of the wrists and waist, and taking many photos. For some, it was helpful to post photos on social media. One participant discussed ‘Transformation Tuesdays’ on Instagram and said that people post photos every Tuesday as tangible evidence of the process of reduced body weight. The collage of photos was ‘worth its weight in gold’ to make the change real and incorporate the new body. Massaging their body could also support learning to know the new body.

> In the morning I massage myself, so I feel: “This is me. Here’s the limit of where I am.” Too many times when I walk past tables and things like that, I don’t really have the feeling of where I end up. But just this with me massaging myself and feeling like this is my body. It has helped me understand where my skin and body are. (008)

### 3.1.2 | Family support

Another source of support was social support from the immediate family, that is, husband, wife, partner and children. This support was portrayed as the basis for daily functional life. The participants articulated the family’s importance in surgery decisions, but the most important undertaking was to offer long-term support after surgery. Participants were relieved that the family understood their challenges and needs, so they did not have to explain the same things repeatedly. Some found it difficult to consider surgery outside the immediate family but felt it was necessary to involve their family and be honest with them.

> Yes, the family has always known what I have done, and they have asked, and I have explained to them. So, they have always been there for me, and I’m grateful for that. If you stand alone, I think it can go to hell. I guess family is important. (016)

Most participants felt they received adequate support from the family, even though such support could vary between family members. For example, one participant had a supportive partner but felt that the children were not involved.

> The support from [my] children has been zero. They have never been involved in the time before and after surgery. (008)
The participants generally experienced they were kindly met by co-workers and friends. They were encouraged to hear positive comments about their weight loss. Most felt they could be open about the surgery and the need for a special lifestyle afterward. They also perceived that questions from friends and others were posed positively.

I have only received positive feedback from colleagues. I’ve never heard anyone say, “Oh, you are a burden for health care or something like that. My type 2 diabetes had gone into remission and it has been worth it all.” (008)

Some participants described how thoughtful co-workers were (e.g., by understanding their special needs and reminding them to take breaks). Many said they needed a break every 3 h and that this could be arranged because of understanding co-workers. Support from co-workers was of great importance in functioning well in working life (e.g., supporting adjustments in work schedules and breaks).

The job was perfect: “‘Hey you, now it’s probably time for you to eat.” Well, just that. My friends also: It has been a great understanding if we have been out somewhere. No one thought I did anything strange. (022)

3.2.3 | Adaptations in restaurants

Participants experienced a growing understanding of society and restaurants in people who have had bariatric surgery. At restaurants, they were often met with understanding and awareness of their eating situation and could order a children’s portion size.

I go out to eat, but I usually tell when I order food not to give so much; it is unnecessary to throw food away. So little less than a normal child portion because I cannot eat much. Many places even offer to charge a little less. And I think that’s great. (014)

Another strategy was only to take starters. The participants also appreciated that it is common for restaurants to have smaller dishes on the menu, such as tapas. However, not everyone felt they were met with empathy, and at some restaurants, it could still be difficult to order a small portion. Being a well-known customer at a restaurant made it easier; however, travelling and visiting restaurants for the first time presented new challenges. Some participants did not feel comfortable requesting small portions. When ordering meals in small portions, they often had to explain the reason, which many felt was uncomfortable. A helpful approach was that the participants had been given a special blue card from their health care provider certifying that they had undergone surgery and that restaurants are recommended to serve smaller portions on request.

There are many restaurants where I ask if I can order a child’s portion. First, they reject, but when I show the blue card, I can order a small portion, which is great. Then there are several places where I ask about getting a child’s portion, and they say, “Of course.” (022)

3.3 | Health care support

3.3.1 | Early support needs

During the early phases, from surgery preparation to the first post-surgery follow-up appointment, the participants mentioned that the most critical components of adequate health care support were getting accurate information and feeling medically safe through the many checks and tests they underwent. They also met with a dietician to receive advice on food and how to eat. Most participants felt noticed and kindly treated, received adequate information and had their questions adequately answered by the health care professionals.

Support from health care was good. I have learned about the operation and a little about what the risks involved. I think it’s good that I’ve been able to consider these risks. And I think it has also been clear what to expect and how to live afterward. (013)

That the physician or registered nurse from the gastric bypass team phoned and asked questions about the person’s well-being and having a named healthcare professional they could contact if needed made them feel cared for and secure. The participants knew that they had participated in a research study, and for some, they had received extra support beyond usual care.

Both nurses and doctors were very clear, and I have received good information from them. I’ve never had to hesitate. I felt I could call someone in the research study. (022)

Despite this, many patients felt that too much responsibility was placed on them as patients. Many participants expressed they needed to be persistent and had to ask many questions to get relevant information.

I received information from health care because I often asked for it. I was not happy with the information about, for example, alcohol, but I got to know more when I asked more questions. It was because I was persistent in my questions that I got to know. (Bg 0030)

Participants understood that healthcare professionals could not automatically provide information about everything but that there must be opportunities to ask questions and receive explanations. Although being persistent in asking for information was easy for some, others found
this problematic. Those not as eager to ask questions felt they lacked vital information and were less satisfied with support from health care. One participant was particularly disappointed concerning support.

I lacked information before; I lacked information after and I lacked contacts after, discussion partners after, and support after. (008)

3.3.2 | Long-term support needs

When the participants were discharged from specialist gastric bypass care, they were directed to contact primary healthcare if necessary. Discharged from specialist care follow-up and support from specialist care were not in line with their needs and could be perceived as a loss of security. With time, as the need for contact with primary health care centres and other health care units increased, a lack of experience and knowledge among health care professionals outside specialist gastric bypass care was experienced. One participant reported not receiving proper follow-up at the general health care centre.

Yes, I was exhausted, and then I noticed I got sores in my mouth. I had the typical symptoms of iron deficiency. And I had already discussed it at the health care centre, but they did not act. I think it is extremely important that they follow me up for the first 2 years. (016)

As time passed, the need for support could shift towards more mental health and psychosocial support in handling personal changes and the challenges of everyday life.

In the beginning you feel fantastic because your physical health improves and then you feel better mentally, so it’s connected. And you felt more energetic and so on. But then I ended up with feelings of anxiety. It may also have been affected because I was changed. It probably came approximately 6 months after the operation. So, I started talking to a psychologist and still spoke to her. (020)

3.4 | Peer support

3.4.1 | Online peer support

Participants often used online forums (e.g., Facebook, the Swedish Gastric Bypass Community, and the international weight loss surgery community on Instagram) to gain more knowledge and support from others in the same situation. Online peer support was used before surgery to prepare and support the decision to do the surgery and afterwards to assist with everyday challenges.

This was before I got the surgery appointment. So, during that year, I prepared well. I was on Facebook groups. I was on Instagram groups. There is a fantastic weight loss community on Instagram, with those who have not had surgery yet and those who have had surgery. So, I prepared myself very well. (008)

Although not all were active members, they followed what others posted online. On these forums, participants felt there was easy access to answers to their questions and different support mechanisms and that they could share experiences about most things, from eating habits to stomach problems.

The internet has been outstanding support, yes. On Facebook, this gastric bypass Sweden, people ask all these questions; “I can’t poop,” and they immediately get answers, including from me. Because I think it’s important that you exchange experiences, what I can do better, and maybe be a coach for someone who is feeling mentally and physically bad. (0016)

Despite the downside in judging the accuracy of the advice, online peer support was used as a complement to, and sometimes instead of, health care support. This is especially the case if there were questions they were uncomfortable asking the physician or topics they felt only those with personal experience could answer.

It’s easier to consider everyday challenges with someone with similar experiences than to talk to a physician. (015)

3.4.2 | Face-to-face peer support

Some participants suggested that support groups could be organized by the health care provider or a gastric bypass surgery association, if such an organization were to be started. Some participants expressed that, had the opportunity arose, they would have appreciated participating in a real-life support group. They appreciated the group-based information meetings before surgery. They suggested sessions should also be offered after surgery to discuss different topics (e.g., hair loss, fatigue, nausea). They wanted peer support from others but were also willing to assist by sharing their experiences. One participant explained how she had offered to share her experiences with a co-worker awaiting surgery.

She has asked me a lot...and I said, call and ask when you’ve had surgery. If there’s anything you’re wondering, I’ll be there to help you. (0019)

Participation in support groups was not for everyone, however. Some participants had received support from their friends who also had surgery and felt no further help was needed. Meeting with others and discussing personal matters were also considered awkward. As one participant explained:

I don’t think I would ever be able to discuss such a thing with people I don’t know. So if I were to sit in a group of
In line with previous research, transitioning from specialist care to primary health care had a negative impact on the participants’ sense of security. As experienced by the participants, primary health care did not monitor the medical outcomes of patients as regularly as specialist care did, and sometimes not at all. Participants also experienced a general lack of relevant competence when in contact with different health care providers outside specialist gastric bypass care, which created concern regarding their health status and insecurity regarding their care. As previously noted by others, long-term monitoring and follow-up are essential components of care to create security for adults who have undergone bariatric surgery. In recent Swedish guidelines, it has also been proposed that there is a need for cooperation, joint actions, and knowledge exchange between different health care providers to meet the long-term needs of patients after bariatric surgery. These guidelines also acknowledge that healthcare needs might be a lifelong struggle. To further support the adoption of new habits, it has been suggested that referral to psychologist should be incorporated into standard care after bariatric surgery.

One limitation of our study is that the results reflect a study group that, by being enrolled in an RCT, might have received more monitoring and support than those given usual care. The participants in our study have contributed experiences about the need for information, monitoring, and support that ought to be relevant outside the study group. The gap between the transition from specialist care to long-term care might be more prominent for our group. Furthermore, our patients had a somewhat lower baseline BMI (37 vs. 42 kg/m²) and higher age (55 vs. 42 years) than the overall patient cohort undergoing gastric bypass in Sweden. However, the sex distribution and effect on T2DM are identical to national averages.

One strength was the interprofessional competence within the research team which contributed with different perspectives and an interdisciplinary approach. At the time of the study, all researchers had a PhD or MD working as clinical physicians (PK, JWE, MS) or as university lecturers (ER, JL, MSE). All had extensive experience in qualitative research. The research group (three women and three men) comprised trained physicians (PK, JWE, MS), registered nurses (JL, MSE) and a social worker (ER). The researcher conducting the interviews (ER) had not met the participants before the study and had no clinical relationship with them.

The study shows that support is received from various sources and support needs vary over time in adults who have undergone bariatric surgery; support and care is needed beyond the initial honeymoon phase. Long-term professional and day-to-day support from family and other networks are essential and complementary elements of support. Healthcare staff should consider these findings, especially during the early follow-up period.

4 | DISCUSSION

Undergoing bariatric surgery can affect life both positively and negatively in different ways. Our findings show that support was needed before and after surgery. In addition, our results demonstrate that relevant support was given and received from various sources, that support needs varied over time depending on where the patient was in the care process, and that the sources of support were complementary. Support was seen at the individual, group, organizational and societal levels.

During the early phase before and shortly after surgery, the need for support concerned medical monitoring and information from health professionals about eating right and establishing new lifestyle habits. As previously stated, information and support should be offered in relation to individual needs. Many participants were content with the support from health care centres. However, to receive adequate information the participants had to ask questions often and seek help actively and persistently. While this was easy for some participants, others found it difficult to request information and support. Variations in patient needs and resources can challenge healthcare providers who are asked to adhere to evidence-based group-level guidelines and structured processes. However, consistent with the growing movement towards person-centred care and Swedish legislation, healthcare systems must meet individual needs related to each patient’s resources, prerequisites and wishes.

In the early postoperative phase, support from family was important in adopting new habits and encouraging self-support. Acknowledging the influence that partners have on each other, a study conducted in Canada highlighted partners’ perspectives of living with someone who undergoes bariatric surgery. They suggested that family members should actively be invited to take part in healthcare visits to enhance their understanding and ability to support the individual undergoing bariatric surgery. During the reorientation phase, involvement in social life and visiting restaurants, support from friends and colleagues proved useful. Return to work or extended hours at work required the employer to adapt and provide support to ensure regular eating is practised. These results, that is, support from friends, colleagues and employers have also been put forward in relation to adequate self-management of diabetes.

Over time, other support needs arose, such as maintaining new habits and providing more psychosocial support. The participants appreciated the group-based information meetings offered before surgery, and some suggested sessions should be offered after surgery. The importance of long-term psychosocial support and the advantages of meeting others in a similar situation has also been emphasized in previous publications. Our results also support previous findings that internet forums and social media groups can provide effective web-based social support, that is, that peers answer questions, educate and share their experiences with others via these groups. An often highlighted but relatively unknown downside of social media support is that advice varies based on subjective experiences and may not always be relevant (and sometimes even misleading).

Like reported by others, transitioning from specialist care to primary health care had a negative impact on the participants’ sense of security. As experienced by the participants, primary health care did not monitor the medical outcomes of patients as regularly as specialist care did, and sometimes not at all. Participants also experienced a general lack of relevant competence when in contact with different health care providers outside specialist gastric bypass care, which created concern regarding their health status and insecurity regarding their care. As previously noted by others, long-term monitoring and follow-up are essential components of care to create security for adults who have undergone bariatric surgery. In recent Swedish guidelines, it has also been proposed that there is a need for cooperation, joint actions, and knowledge exchange between different health care providers to meet the long-term needs of patients after bariatric surgery. These guidelines also acknowledge that healthcare needs might be a lifelong struggle. To further support the adoption of new habits, it has been suggested that referral to psychologist should be incorporated into standard care after bariatric surgery.

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5 | CONCLUSIONS

The study shows that support is received from various sources and support needs vary over time in adults who have undergone bariatric surgery; support and care is needed beyond the initial honeymoon phase. Long-term professional and day-to-day support from family and other networks are essential and complementary elements of support. Healthcare staff should consider these findings, especially during the early follow-up period.
AUTHOR CONTRIBUTIONS
All authors participated in the study design and Eva Randell conducted the interviews. Eva Randell and Maria Svedbo Engström conducted the analysis, but all authors were involved in the final discussion of the findings. Eva Randell and Maria Svedbo Engström authored the paper with input from the other authors. All authors gave their final approval of the submitted version.

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CONFLICT OF INTEREST STATEMENT
No conflict of interest was declared.

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REFERENCES
APPENDIX

Interview guide (previously published).13

Can you tell me how you feel today?
Can you tell me about how you lived your life today?
Can you tell me about how you view the expectations you had before the surgery and how you feel about them now?
How has your physical health been affected by the operation? How has your psychological life been affected by the surgery?
How has your social situation been affected by the operation? Has your life been changed by the surgery? If so, in what way?
Has something gotten better in your life? Has anything gotten worse in your life?
What challenges have you faced after the surgery and how have you handled them?
Has your view of yourself been affected by the operation? If so, in what way?
Have other people’s views of you been affected by the operation? If so, in what way?
How do you feel about the time before surgery now? How do you feel about the surgery now?
How do you feel about the support you received after the surgery?
What do you think of your future when it comes to your living habits?
Is there anything you want to add?