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# Health personnel's perceptions of pressure on capacity in the specialist health services

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## ORIGINAL ARTICLE

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## BACKGROUND

Increasing the utilisation of unused capacity in hospitals is a health policy goal, but there is concern that little unused capacity remains. The objective of the study was to examine how healthcare personnel experience and deal with pressure on capacity in the somatic specialist health services.

## MATERIAL AND METHOD

In this qualitative study, we conducted semi-structured interviews with unit heads and doctors and nurses involved in discharging patients in two Norwegian hospital trusts. Nine interviews (both individual and group) with altogether 19 informants were carried out in the period October 2017–February 2018. The interviews were analysed using systematic text condensation.

## RESULTS

Pressure on hospital capacity was described as continual pressure to treat more patients. The informants used the term 'undercapacity': a situation in which increased demands without sufficient resources were detrimental to something or someone. Elderly patients who had completed their treatment and were waiting for the provision of municipal services were regarded as particularly vulnerable, since they were often overrepresented among the patients moved between departments and wards in order to free up capacity when beds were urgently needed. The hospital staff felt they had little influence on the type of municipal services the patients were offered following discharge.

## INTERPRETATION

The informants stated that their daily work was negatively affected by undercapacity. Health professionals' perceptions of pressure on hospital capacity constitute vital knowledge in policy formation in the field.

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### Main findings

Daily work at hospitals was described in interviews as being negatively affected by undercapacity.

Elderly patients who had completed their treatment and were waiting for the provision of municipal services were highlighted as being particularly vulnerable to pressure on hospital capacity.

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Over time, developments in Norwegian hospitals have trended towards shorter hospitalisation periods, an increase in the number of patients and a clear tendency towards providing more healthcare services as day and outpatient treatment [\(1\)](#). Meanwhile, influential voices are raising concern about the lack of unused capacity and the fact that demands for rationalisation can result in lower efficiency [\(2–5\)](#). A German study from 2014 suggested that there is a

clear limit for safe occupancy level (6). The discussion is also of relevance in Norway, where the former president of the Norwegian Medical Association is one of many who have expressed concern (7).

One of the aims of the Coordination Reform, which was introduced in 2012, was to reduce the increasing use of specialist health services by transferring more responsibility for treatment to the primary health and care services (8). However, the demographic trend towards an ageing population (9) entails greater pressure on the sector as a whole, for example regarding floor space and personnel. To meet future challenges, investments are being made in new technology, better logistics and resource utilisation in addition to the transfer of tasks to the local authorities (10).

Adequate patient treatment requires coordination and prioritisation of capacity between the different levels of the health services. Capacity problems in one area may affect quality and capacity in other parts of the service. A hospital can compensate for an unexpectedly high influx of patients in acute need of help by postponing/cancelling planned operations, reducing hospitalisation time and discharging more patients to their home municipalities. Such a response may have unforeseen consequences, for example for health personnel, patients and their families.

All factors related to pressure on capacity are not sufficiently documented. The objective of this study was to investigate how healthcare personnel in the somatic specialist health services experienced and handled pressure on capacity in their daily work.

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## Material and method

We carried out a qualitative study with analysis of interviews with health personnel from two Norwegian hospital trusts conducted in the period October 2017–February 2018. The sample represents unit heads, and doctors and nurses involved in discharging patients from medical, surgical and orthopaedic wards who normally deal with a large influx of acute patients. The occupancy rate at the selected hospitals stood at 84–95 % in the period 2016–18. The national average for the same period was 85 % (11). The informants were recruited via requests to unit heads who then suggested potential participants at their unit.

A semi-structured interview is organised in accordance with a pre-defined, but open plan. It is particularly well-suited for generating data on subjective phenomena, opinions, feelings and perceptions (12). We designed an interview guide with the following topics: 'pressure on capacity', 'discharge of patients' and 'overcrowded hospitals'. The guide included questions about workload, how the informants viewed a quiet vs. a busy day at work and handling the large influx of acute patients.

Five informants were interviewed individually, while 14 other informants were divided into four groups. The group interviews included 3–5 managers, doctors and nurses. The interviews lasted from 1–1.5 hours. We discontinued the recruitment of informants when we found that further interviews did not add

new information (12). During the planning of the study methodology, we discussed whether informants would adapt their narratives in line with the interview situation. We carried out both individual and group interviews. The latter stimulate discussion between the informants underway, which may lead to further variation in the dataset.

All the informants received an information letter prior to the interview and gave written consent to participation. The interviews were first recorded as an audio file and then transferred to an access-restricted internal file and transcribed in full. Personal data were treated confidentially, and the interviewee's name, name of the institution and location were anonymised. The interviews were assigned identifiers (A–I). Quotations are given with references in brackets. The analysis was inspired by systematic text condensation whereby the researcher proceeds stepwise from identifying themes to sorting data units, coding, condensing and synthesising findings (13).

The Norwegian Centre for Research Data concluded that the study satisfied the requirements of the Personal Data Act (55124/3/LH).

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## Results

The informants' overall narratives on capacity problems related to the following topics: 'rationalisation', 'smarter working', 'undercapacity' and 'solving [tasks] within the parameters'. Discussions of such pressures triggered strong engagement. This could be interpreted as a therapeutic need to 'talk through' experiences from hospital corridors, but the informants stated clearly that pressure on capacity was a major factor in their daily work, and was caused by structural conditions that could not simply be reduced to an individual feeling of pressure and stress. It concerned the organisation and content of health care and how efficiency demands altered tasks such as discharging patients. In the following, therefore, we describe not only how pressure on capacity was perceived but also how healthcare work was adapted.

### **What does pressure on capacity refer to?**

Informants described pressure on capacity as an intrinsic part of their healthcare work, as a factor they always had to keep in mind and adapt to. Moreover, they described it as an ever-increasing element in daily work at larger hospitals. Several informants were of the opinion that pressure on capacity might be a misleading term and proposed using the term 'undercapacity' instead.

'It's actually about undercapacity at all levels. And by that I mean shortage of floor space and personnel, and that there's a daunting and increasing influx of patients. [...] So it's very much about logistics, the pressure to treat, assess and discharge patients fast enough and to make them circulate from all destinations we have' (A).

Undercapacity is understood as increased requirements in relation to available resources that are viewed as detrimental to something or someone. An underdimensioned organisation has undercapacity, not pressure on capacity. There is

a lack of space and staff.

Finding space for patients is described as a daily challenge. For example, it might be difficult to find an available bed in the clinically appropriate department, which in turn resulted in more transport: 'When [we] can't find room in the right department, we must find a place somewhere, a bed, but sometimes it's not in the appropriate ward. So then the patients are moved again later when it is possible' (D).

The pressure was also perceived as affecting relationships between colleagues, since 'shifts with a lower level of staffing [...] demand that you perform 100 % [...] and having someone who doesn't perform optimally is a challenge' (D). Working together with someone who needs guidance means that others have to do more, which the informants described as giving them 'a constant feeling of inadequacy' (C).

Several informants stated that changed working conditions gave little leeway for professional development and quality improvement. The unit heads estimated that 'they maybe spend 90 % of their time on logistic challenges instead of management. That's not good'(A).

### **Rationalisation = greater efficiency?**

Whether rationalisation improves efficiency was a problem discussed in several of the interviews. As one informant said, 'I spend a lot of my time saying it's too overcrowded here, things are moving too fast, there's so little capacity here that we are [...] overstretched. I want to reduce it [the speed] and I think that would be more effective' (B). The pace of work was a recurrent topic. Other informants supported this argument:

'What annoys me most about all this is not when it's busy and you're working hard, but when I'm having to spend time being inefficient. Spending ages trying to get hold of people, placing patients, lots of unnecessary work. Like for example spending several hours trying to get hold of people or not being able to find a bed straightaway instead of helping out in the department' (D).

One informant pointed out: 'There's a belief that we only need to work in a smarter way or be more efficient and work more with the logistics. In my opinion, that's what we do all the time [...] we don't often get around to other things like enhancing quality' (A). According to the informants, the pressure on capacity created demands for better organisation whilst the increasing pressure also required time for prioritisation and patient logistics, time which could have been spent on patients.

The informants made it plain that some patients were resource-intensive *because* they had to adapt to the 'streamlined production lines' of the hospitals. While these could not be adapted to the patient, the patient was unable to adapt to them. As one informant pointed out: 'The age of the patients we operate on is increasing all the time, and these older patients have a low tolerance level for surgery, and many become psychotic afterwards and are in a state of delirium. Then they have to be monitored continuously and we need to hire extra staff for them, which is very resource-intensive' (C). Due to the lack of beds and

increased patient throughput, patients also required more follow-up as a rule. Elderly patients in particular were described as a challenge in the quest to meet the hospital's needs for efficiency:

'The patient arrives and at our hospital things must move fast. So they often come in on the day of their operation. They have taken care of things at home and are ready, and they come along with their daughter for the operation. And things must go very fast. Primarily because we need to get them out again quickly because we have little capacity but also because there's the continual pressure of statutory requirements. So some poor old soul is thrown in at the deep end as soon as he arrives. We operate on him, but he falls ill afterwards because he isn't really well enough to be operated on and he's insufficiently prepared' (B).

The patient's practical, physical and mental preparation was described as of key importance for the success of the operation. Some patients were admitted the evening prior to surgery because they needed help and major surgery was involved: 'It's also very important that [patients] sleep well. If they're unable to carry out the preparations they're supposed to, they must be hospitalised'. When preparations were left to patients and their family, the health personnel no longer had control of whether they had been carried out.

### **Pressure on capacity and discharge practices**

In the interviews, informants emphasised that elderly patients who had completed medical treatment but were waiting for the provision of municipal services were particularly affected by pressure on capacity in the hospital. When there was an urgent need for beds, these patients were often moved between departments and beds to make room for new patients. 'In times of crisis, we actually remove patients from the lists,' said one informant. This meant that planned stays were cancelled. In addition, they discharged patients at the weekend and 'earlier; you discharge patients more frequently and at an earlier stage' (B). One informant characterised this as follows: 'Our daily work is such that we're often aware that beds are vacated prematurely because we know how much pressure there is to admit new patients'(D).

Rigorous medical expertise is required in making the correct decision when patients are categorised according to who is allowed to stay and who is to be discharged: 'It depends on how confident doctors are and how competent they are. The more proficient they are, the more likely it is that they will make the right decision,' one informant (A) said. Making the correct decision is even more important when the doctor responsible for discharging the patient has little influence on what awaits the patient following discharge. The local authority decides what services the patient needs. One informant mentioned a frustrating conversation with a colleague: 'He said that he thought that this particular patient needed to be given a place in an institution, but then the local authority comes along and says, "We'll provide home care nursing because we think that's enough". And then there's nothing we can do' (I).

Improved dialogue with the local authorities was also sought: As of today, 'there's no dialogue, we are barely allowed to telephone the local authority [...]' The nurses are only supposed to send a discharge notification [...] Sometimes we call the GP but it's usually difficult to get in touch with them. Nursing home

doctors are also difficult to contact so we very seldom discuss the patients. Of course, we give our recommendations in the discharge report, but dialogue meetings [across services] barely exist. It's when we have a patient who's been hospitalised many times that we see that this doesn't work; then we have to involve the local authority so maybe we organise some meetings with the patient's family' (H).

There were few opportunities to have a dialogue on the needs of patients after discharge. At the same time, staff expressed great interest in the outcome of the discharge. 'The doctors don't really want to discharge them but there are people who are sicker who must be admitted. There's continual pressure from many quarters really,' one informant summed up (D).

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## Discussion

While our questions were about the capacity of the hospital, the informants changed the focus of discussion to undercapacity. Full resource utilisation entails balancing on the borderline of undercapacity, which may turn out to be regarded as an indefensible situation. The interviewees were sceptical to further pressure on capacity, particularly at larger hospitals. Several highlighted the adverse impacts of this, such as overstretched staff and poorer service provision to patients – and that these costs are not sufficiently acknowledged.

Elderly patients who had completed their treatment were regarded as being particularly vulnerable to pressure on capacity. Elderly, chronically ill patients have a low tolerance level for busy, complex and changing environments. Our informants confirmed the concern expressed in an original article by Evensen et al. that overcrowding, short periods of hospitalisation and low staffing levels resulted in poorer patient treatment [\(14\)](#). Moreover, the informants stated that the discharge process was affected by capacity problems with more frequent and earlier discharge during which communication with the local authority was characterised by formal procedures and negotiations. The main findings of the study are also fairly similar to the findings of a qualitative study of five EU countries which showed that discharges were affected by both the lack of time and the lack of hospital beds, health personnel with many concurrent tasks and limited resources in the primary health services [\(15\)](#).

## Strengths and limitations

The study is based on interviews with 19 informants at two Norwegian hospital trusts. The results cannot be generalised to the entire Norwegian hospital sector but apply to the work situations, departments and hospitals with which health personnel are familiar [\(12\)](#). Our use of the term 'pressure on capacity' as the overarching topic of the interviews may have led to health personnel putting emphasis on critical conditions at their hospitals.

Furthermore, the recruitment strategy may have created bias in the sample in that unit heads may have recruited those with the same views as themselves. Nevertheless, we believe that the dataset and its interpretation are not



characterised by such weaknesses. For example, the informants' views were not consistently critical.

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## Conclusion

Hospital staff are loyal to the patients and the system. This can result in a high threshold for expressing criticism or concern. At the same time, experiences from 'the inside' may be precisely what fosters better adapted measures. Acknowledging the opinions of staff is in line with health policy requirements of user participation (16) and can serve as a quality assurance measure in the search for good solutions for the future organisation of hospitals. Failing to seek the perceptions of healthcare personnel is both a policy choice and a leadership decision – and must be treated as such.

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*The article has been peer-reviewed.*

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