

# Health Care Personnel's Perspectives on Quality of Palliative Care During the COVID-19 Pandemic – A Cross-Sectional Study

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**Purpose:** The provision of high-quality palliative care is challenging, especially during a pandemic like COVID-19. The latter entailed major consequences for health care systems and health care personnel (HCP) in both specialist and community health care services, in Norway and worldwide. The aim of this study was to explore how the HCP perceived the quality of palliative care in nursing homes, medical care units, and intensive care units during the COVID-19 pandemic.

**Methods:** This study had a cross-sectional design. A total of 290 HCP from Norway participated in the study (RR = 25.8%) between October and December 2021. The questionnaire comprised items concerning respondents' demographics and quality of care, the latter measured by the short form of the Quality from the Patient's Perspective—Palliative Care instrument, adapted for HCP. The STROBE checklist was used.

**Results:** This study shows that the HCP scored subjective importance as higher in all dimensions, items and single items than their perception of the actual care received. This could indicate a need for improvement in all areas. Information about medication, opportunity to participate in decisions about medical and nursing care and continuity regarding receiving help from the same physician and nurse are examples of areas for improvement.

**Conclusion:** Study results indicate that HCP from nursing homes, medical care units, and intensive care units perceived that quality of palliative care provided was not in line with what they perceived to be important for the patient. This indicates that it was challenging to provide high-quality palliative care during the COVID-19 pandemic.

**Keywords:** COVID-19 pandemic, health care personnel perspective, palliative care, quality of care

## Introduction

The COVID-19 pandemic started to unfold in Europe at the beginning of 2020,<sup>1</sup> and entailed major consequences for health care systems and health care personnel (HCP) worldwide, in both specialist and community health care services. This raised a number of ethical issues regarding the potential need for rationing health care in the context of scarce resources and crisis capacity.<sup>2</sup> Previous research has found that HCP experienced various psychological reactions, such as depression, anxiety, sleeping problems, trauma-related stress, and physical symptoms from providing nursing care to patients with COVID-19.<sup>3,4</sup> Some HCP experienced such strong reactions that they became reluctant to go to work,<sup>3</sup> these kinds of psychological reactions may have negatively influenced the quality of palliative care being provided.

As in other countries, COVID-19 was spread among the Norwegian population, and the hospitals were overloaded of patients with the infection. Frail, older people with multimorbidity were identified as especially vulnerable during the pandemic and at a high risk of serious illness and death,<sup>5,6</sup> they therefore accounted for a larger proportion of the patients in need of palliative care.

Palliative care is defined as a multidisciplinary approach that aims to improve the quality of life of patients (and their families) facing life-threatening illness, through the prevention and relief of suffering via the early identification, assessment, and treatment of pain and other problems of a physical, psychosocial, and spiritual nature.<sup>7</sup> In Norway, palliative care is provided in community health care and in specialist health care.<sup>8</sup> In specialist and community health care, general palliative care is an integrated part of the services and delivered in people's homes, nursing homes, and hospitals. In addition, specialized palliative care is provided through palliative units in hospitals, palliative care teams, and palliative centers. In the community, specialized palliative care is provided through palliative units or beds in nursing homes.<sup>8</sup>

For many patients with COVID-19, the illness became life-threatening. As noted above, older patients with chronic illnesses seemed to be predisposed to a serious course of illness and death upon contracting COVID-19. Many of the older patients at risk were those who were admitted into or living in nursing homes, frail, and/or receiving care from personnel who might have been exposed to COVID-19.<sup>9</sup> Pandemics like COVID-19 pose a challenge for the provision of high-quality palliative care, as they result in a surge of patients who need palliative care during their end of life, which may exceed the capacity of palliative care teams.<sup>10</sup> Both in Norway<sup>9</sup> and internationally,<sup>11,12</sup> challenges have been observed in caring for these patients, often stemming from an insufficient capacity to treat everyone in need, a lack of equipment for infection control, a high workload, a fear of becoming infected and spreading the virus, and a heavy emotional burden.<sup>11,12</sup>

Quality of care is complex and multidimensional, including different levels and perspectives.<sup>13</sup> The quality of palliative care in acute wards is reported to be a complex process even before the pandemic, in which nurses strive to provide high-quality care but report being pulled in many directions.<sup>14</sup> Nurses who work in palliative care outside of specialized settings express a strong desire to provide dying patients and their families with high-quality care. Despite this, they experience various degrees of dissatisfaction due to insufficient cooperation, support, time, and resources.<sup>15</sup>

A number of studies exist on what affects palliative care in different settings.<sup>3,4,14,16</sup> Studies also report on patients' and relatives' perspectives on quality of palliative care.<sup>17,18</sup> However, there is a lack of knowledge on how HCP experience the quality of palliative care for patients during a pandemic, despite the fact that such knowledge is important for handling future pandemics. The aim of this study was to explore how HCP perceived the quality of palliative care in nursing homes, medical care units, and intensive care units during the COVID-19 pandemic.

## Materials and Methods

### Design

This study had a cross-sectional design to explore the HCP's perceptions of quality of palliative care during the COVID-19 pandemic. It is part of the Palliative Quality Care Covid-19 multicenter study in Norway and Sweden. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist for cross-sectional studies was used.<sup>19</sup>

### Setting and Participants

The HCP were recruited from specialist and community health care services in three counties in Eastern Norway. The specialist health care services included four general medical wards, six intensive care units, and one palliative care unit in hospitals. The community health care services included five nursing homes with nine wards, including five general nursing homes wards, three wards specializing in dementia care, and one ward specializing in palliative care.

The inclusion criteria for participating in the study were HCP who worked in direct patient care in the selected care services; registered nurses (RNs); nursing assistants, nursing students, or nursing assistants without formal education; and worked full-time, part-time, or temporarily (or were permanently employed during the pandemic). HCP who were on sick leave were also invited to participate if they had worked during the pandemic.

## Procedure

The care services were recruited by project members from Østfold University College, the Inland University of Applied Sciences, the Inland Hospital Trust, and the Centre of Development of Institutional and Home Care Services in Inland (Hedmark) County. The leaders of the services were asked to recruit respondents according to the inclusion criteria, and to forward all potential respondents written information about the study, including a link to the electronic questionnaire. Leaders of two nursing homes in the community care services distributed a paper version of the questionnaire, together with written information about the study, to respondents who did not have access to an email address at work. Completed questionnaires were returned in an envelope to a locked post box.

A reminder was sent via email or orally by the leaders in the wards after one and two weeks. Data were collected between October and December 2021.

## The Questionnaire

The questionnaire (160 items) used in the multicenter study in Sweden and Norway aimed to investigate HCP's perspective of the palliative care and psychosocial work environment. In the present article, results related to the following data from the Norwegian sample will be reported: respondent demographics (21 items) and the quality of palliative care, as measured by the short form of Quality from Patients' Perspective – Palliative Care (QPP-PC) (24 items) and three items about information and participation.<sup>20</sup>

Data about respondents' demography consist of place of work, whether they had worked during the pandemic, age, gender, marital status, profession (if "other", what type of profession), education, academic degree, education relevant for palliative care, employment conditions, kind of employment, working beyond their ordinary position, time working in health care services, time working at current place of employment, whether they had relocated during COVID-19 pandemic (if yes, whether the relocation was voluntary), followed up patients with proven COVID-19, followed up patients suspected of having COVID-19, and had COVID-19 (if yes, whether their work had been affected).

The psychometrically evaluated short form of the QPP-PC<sup>20,21</sup> was used to measure quality of palliative care from the HCP's perspective. The questionnaire was derived from the patient's perspective and is based on a theoretical model: the quality of care from the patient's perspective.<sup>21</sup> The 24-item QPP-PC consists of 4 dimensions and 4 single items representing quality of care: "medical-technical competence" (2 items and 2 single items), "physical-technical conditions" (3 items), "identity-oriented approach" (9 items), and "sociocultural atmosphere" (6 items and 2 single items). Each of the 24 items were answered with regard to (a) the perceived reality of the item and (b) the subjective importance of the item.<sup>21</sup> The instrument was developed to measure patients' experiences of palliative care quality.<sup>17</sup> It was later adapted to also measure HCP's perceptions of the care patients received, by modifying the wording.<sup>22</sup> The perceived reality was measured by items related to the sentence, "This is how it is for the patients": for example, "Patients receive the best possible help for pain and/or discomfort" and "Patients' relatives are treated with respect." A 4-point response scale ranging from 1 (do not agree at all) to 4 (fully agree) was used. The subjective importance was measured by items related to the sentence, "That is how important I consider it to be for the patients": for example, "The nurses in the team are respectful towards the patient." A 4-point response scale ranging from 1 (of little or no importance) to 4 (of the very highest importance) was used. A non-applicable response was available for both perceived reality and subjective importance.

The QPP-PC also includes three items with the response alternatives "yes" and "no" in the identity-oriented approach dimension about whether the patients had received information about (a) the patient's responsible physician and (b) the patient's responsible RN and (c) the patient's opportunity to participate in an individual care plan.

In the present study, the Cronbach's alpha values for the perceived reality scales ranged from 0.80 to 0.92 and for the subjective importance scales from 0.78 to 0.92. In both perceived reality and subjective importance, the physical-technical conditions had the lowest score, while the identity-oriented approach had the highest score.

## Analyses

Analyses were performed using IBM SPSS Statistics Data Editor Software, version 25.<sup>23</sup> Descriptive statistics were used to describe respondents' characteristics and are presented as frequencies, percentages, means, and standard deviations according to the levels of data. To explore differences in the HCP's perceptions of the actual care received (perceived reality scale) and the subjective importance of the care areas (subjective importance scale), paired sample *t*-test was performed for the whole sample. The statistical significance level was set to  $p < 0.05$ .<sup>23</sup>

## Results

### Respondents' Characteristics

A total of 305 out of the 1123 invited HCP returned the questionnaire (response rate (RR) 27.1%). Of these, 15 were excluded for the following reasons: had not worked in clinical practice during the pandemic ( $n = 12$ ) and had not filled out the questionnaire apart from demographic items ( $n = 3$ ). The data analysis was thus based on 290 respondents (RR 25.8%).

The majority of the respondents were RNs and women. The mean age of the respondents was 43 years, with a range of 22 to 68. The respondents' workplace was hospitals (51.4%), nursing homes (35.5%), and palliative care units (13.1%). Approximately one-half of the respondents did not have a special course or further education in palliative care (50.7%).

During the pandemic, around two-thirds of the respondents had worked beyond their ordinary positions, they had not been relocated to other care units (87.9%) and had cared for patients with suspected (87.5%) or proven COVID-19 (62.3%). See [Table 1](#) for detailed information.

### Respondents' Perceptions of the Quality of Care

Respondents' perceptions of the quality of care are presented in [Table 2](#). Further, the results are described by level scores of perceived reality and subjective importance. Level scores of perceived reality and subjective importance are classified as high ( $\geq 3.50$ ) or low ( $< 3.00$ ).<sup>18,22,24</sup> The perceived reality and subjective importance scores were then compared. When subjective importance was statistically significantly higher than perceived reality, this was interpreted as areas in need of improvement.

### HCP Perceptions of the Palliative Care Quality Received During the Pandemic

For the perceived reality scale, none of the dimensions and single items were scored high ( $\geq 3.50$ ). At the item level, high levels of perceived reality were scored for two items in the identity-oriented approach dimension, "The personnel in the team understand how the patients experience their situation" and "The personnel in the team are respectful towards the patients", and one item in the sociocultural atmosphere dimension: "Patients' relatives are treated with respect." None of the dimensions were scored low ( $< 3.00$ ). At an item level, 9 out of the 20 items were scored low in the perceived reality scale. The single item about spiritual care in the sociocultural atmosphere dimension was also scored low.

### HCP Perceptions of What is Important for Life-Threatening Ill Patients During the Pandemic

None of the dimensions on the subjective importance scale were scored high ( $\geq 3.50$ ) by the HCP. Of the four single items, two were scored high: "The patients receive best possible medical care" and "There is a pleasant and secure atmosphere where the patients receive their medical and nursing care." At the item level, eight items were scored high in the subjective importance scale. No dimension, single items, or items were scored low in the sociocultural atmosphere dimension, ( $< 3.00$ ) except for the item "Patients usually receive help from the same physician and the same nurse".

### Comparison of HCP's Perceptions of the Care Received and Importance of the Care Areas

The comparison between HCP's perceptions of the care received and its perceived importance for life-threatening ill patients showed that subjective importance scores were statistically significantly higher than the perceived reality scores

**Table 1** Respondents' Characteristics (N = 290)

Variable	Mean (SD)	Range
Age	43.6 (12.1)	22–68
	<b>N</b>	<b>%</b>
Sex		
Men	21	7.2
Women	268	92.4
Not binary	1	0.3
Civil status		
Married/living with a partner	205	70.7
Living alone/in a relationship	33	11.4
Single	52	17.9
Education level		
Compulsory school	1	0.3
Upper secondary school	71	24.5
University/University college	218	75.2
Profession		
Registered nurses	205	70.7
Nursing assistant	68	23.4
Other	17	5.9
Context		
Palliative care unit	38	13.1
Hospital	149	51.4
Nursing home	103	35.5
Further education in palliative care		
No	146	50.7
Yes	142	49.3
Employment conditions		
Permanently	275	94.8
Temporary	15	5.2
Employment condition		
Full-time	156	54
Part-time	133	46

(Continued)

**Table 1** (Continued).

Variable	Mean (SD)	Range
Worked beyond ordinary position		
Yes	194	66.9
No	96	33.1
Working at the current workplace		
Less than 18 months	35	12.1
Between 18 months and 5 years	86	29.7
Between 5 and 10 years	66	22.8
More than 10 years	103	35.2
Have you been relocated?		
Yes	35	12.1
No	255	87.9
Followed up/cared for patients with proven COVID-19		
Yes	180	62.3
No	109	37.7
Followed up/cared for patients with suspected COVID-19		
Yes	253	87.5
No	36	12.5
Have you had COVID-19		
Yes	22	7.6
No	263	90.7
Do not know	5	1.7

**Table 2** Comparison of Health Care Personnel’s Perceptions of Perceived Reality and Subjective Importance of Care Received by Dimensions, Items and Single Items (N = 290)

Dimensions/Single Items	Perceived Reality (PR)	Subjective Importance (SI)	n	P*
	Mean (SD)	Mean (SD)		
<b>Medical–technical competence</b>	3.11 (0.70)	3.44 (0.58)	269	<0.001
Patients receive the best possible help for pain and/or discomfort	3.34 (0.71)	3.70 (0.55)	281	<0.001
Patients receive the best possible help for tiredness (lack of energy)	2.88 (0.87)	3.18 (0.78)	269	<0.001
Patients receive the best possible medical care (single item)	3.29 (0.75)	3.63 (0.62)	280	<0.001
The patients receive best possible facilitation of personal hygiene (single item)	3.21 (0.74)	3.27 (0.72)	276	0.152
<b>Physical–technical conditions</b>	3.06 (0.67)	3.38 (0.58)	265	<0.001
Patients receive help within an acceptable waiting time	3.06 (0.82)	3.46 (0.66)	270	<0.001

(Continued)

Table 2 (Continued).

Dimensions/Single Items	Perceived Reality (PR)	Subjective Importance (SI)	n	P*
	Mean (SD)	Mean (SD)		
Patients receive food and drink that they want	3.11 (0.78)	3.39 (0.70)	275	<0.001
Patients have access to the necessary equipment	3.05 (0.77)	3.31 (0.69)	275	<0.001
<b>Identity-oriented approach</b>	3.02 (0.59)	3.38 (0.56)	256	<0.001
Patients receive useful information on how care and treatments will take place	3.10 (0.70)	3.38 (0.64)	278	<0.001
Patients receive useful information on the effects and use of medicine	2.82 (0.79)	3.15 (0.83)	266	<0.001
Patients receive useful information on their illness and symptoms	2.99 (0.76)	3.36 (0.74)	274	<0.001
Patients receive useful information on what they may expect in the near future (development of the illness and symptoms, their health and function)	2.89 (0.82)	3.32 (0.76)	271	<0.001
Patients receive useful information on how to take care of themselves	2.78 (0.81)	3.22 (0.77)	269	<0.001
The personnel in the team give honest answers to the patient's questions	3.32 (0.69)	3.53 (0.65)	278	<0.001
The personnel in the team understand how the patients experience their situation	3.57 (0.60)	3.52 (0.58)	278	<0.001
The personnel in the team are respectful towards the patient	3.51 (0.61)	3.71 (0.53)	278	<0.001
Patients have good opportunity to participate in the decisions that apply to medical and nursing care	2.78 (0.84)	3.29 (0.79)	270	<0.001
<b>Sociocultural atmosphere</b>	3.08 (0.53)	3.39 (0.49)	264	<0.001
The personnel in the team support the patient in living their life in a meaningful way	3.09 (0.74)	3.48 (0.65)	269	<0.001
The personnel in the team support the patient intending to their spiritual and existential needs (life questions) (single item)	2.75 (0.90)	3.23 (0.78)	269	<0.001
Patients' relatives are treated with respect	3.60 (0.54)	3.62 (0.56)	281	0.588
Patients' relatives receive the best possible information, support and care	3.36 (0.67)	3.58 (0.58)	279	<0.001
Patients usually receive help from the same physician and the same nurse	2.31 (0.85)	2.95 (0.83)	277	<0.001
Patients care is determined by their own requests and needs rather than staff procedures	2.90 (0.80)	3.31 (0.69)	276	<0.001
The personnel cooperate well	3.24 (0.68)	3.42 (0.65)	280	<0.001
There is a pleasant and secure atmosphere where the patients receive their medical and nursing care (single item)	3.33 (0.68)	3.55 (0.58)	280	<0.001

Notes: \*p-values refer to differences in paired sample t-tests. A statistical significance was assumed at  $p < 0.05$ .

for all dimensions. In addition, subjective importance was statistically significantly higher than the perceived reality scores for three out of the four single items. No significant difference was found for the single item about personal hygiene. At an item level, subjective importance scores were statistically significantly higher than perceived reality scores for all items except the item "Patients' relatives are treated with respect" in the sociocultural atmosphere dimension.

The results of the HCP scores for the three items in the identity-oriented approach dimension with the "yes" or "no" response alternatives are not shown in Table 2. When asked about whether patients had received information about their responsible physician, 66.7% answered "yes"; concerning whether they had received information about their responsible

RN, 74.9% answered “yes.” And 64.6% answered “yes” that they were given the opportunity to participate in their own individual care plan.

## Discussion

The aim of this study was to explore how HCP perceived the quality of palliative care in nursing homes, medical care units, and intensive care units during the COVID-19 pandemic. There is no established cut-off value for interpreting levels of perceived reality and subjective importance scores in the QPP-PC. However, other studies have interpreted scores ranking from 3.30 to 4.00 as high quality and scores from 3.00 and lower as low quality.<sup>20,22,24</sup> In this study, scores  $\geq 3.50$  are interpreted as high and  $< 3.00$  as low, as previous studies largely used these scores when interpreting the results.<sup>17,22</sup>

The perceived reality scores in this study are consistent with those reported in a previous study that included HCP from a combined acute oncology-palliative care unit in Sweden,<sup>22</sup> which is interesting since the latter was performed before the COVID-19 pandemic. However, the subjective importance scores in this study are lower than those in the Swedish study. This may be explained by priorities related to the COVID-19 pandemic and the fact that intensive care units were included. Hence, many of the items (eg, those related to eating and communication) might not have been perceived as important when patients were intubated in the ICU.

When subjective importance is significantly higher than perceived reality, it may be interpreted as an area for improvement.<sup>17</sup> The HCP scored significantly differently with lower score in perceived reality than in subjective importance in all items but two: “The patients receive best possible facilitation of personal hygiene (single item)” and “Patients’ relatives are treated with respect.” The care given was perceived by HCP as insufficient compared to the importance of the care area. When there is balance between perceived reality and subjective importance with no significant differences, it may indicate that the HCP perceived that the quality of care received was in line with the care that was important for the patients.

In this study, the mean differences in scores between subjective importance and perceived reality were significantly higher for HCP across all but two items. Previous studies have shown that patient scores tend to show smaller mean differences between perceived reality and subjective importance<sup>17,18</sup> than in studies among HCP<sup>22</sup> and relatives.<sup>18</sup> The results of the present study suggest that HCP perceived the care provided to be inadequate and in greater need of comprehensive improvement compared to studies that include patients and relatives. One possible reason for these results is the COVID-19 pandemic, which placed significant demands on HCP caring for patients on the frontlines. During the pandemic, health care professionals reported having insufficient time to provide high-quality care.<sup>25</sup>

In this study, none of the perceived reality dimension items scored high, indicating that the care received was not perceived as being of high quality. The quality of palliative care may have been influenced by the COVID-19 pandemic, which led to comprehensive restrictions in all health care services: both in the specialist health care and community-based services in Norway.<sup>9</sup> Examples include restrictions regarding visits from relatives and friends, maintaining a distance between people of one or two meters, and wearing facial masks and other protective equipment—all factors that lead to barriers in communication and care<sup>26</sup> for patients and their relatives. This may apply for the care settings included in this study. One study found that HCP in palliative wards in hospital and long-term care settings described feeling overwhelmed by the increased need to communicate with and support families through telephone or video platforms due to visitation restrictions.<sup>11</sup> HCP were also fearful of catching or spreading the virus;<sup>27</sup> this may have affected their ability to communicate and the quality of the palliative care they provided. For patients at the end of life, close contact with relatives and good communication with HCP are of utmost importance.<sup>28</sup>

Adequate, tailored information about prognosis and treatment choices are central elements in palliative care.<sup>8</sup> In the present study, items related to information were an area for improvement: especially the items, “Does the patients receive information on how to take care of themselves?” The fact that HCP scored low on information is in line with results from the aforementioned study that was conducted in a combined acute oncology-palliative care unit prior to the COVID-19 pandemic.<sup>22</sup> Previous studies from the patient’s perspective have also found that patients want more information about their situation than they actually receive.<sup>17</sup> The results from this study confirm that information is an area for improvement in the included care settings.

Continuity is an important aspect in palliative care. The Norwegian Directorate of Health states that HCP are responsible for ensuring continuity in palliative care.<sup>8</sup> In this study, HCP scored low in perceived reality on the item concerning receiving help from the same physician and nurse. Continuity is reported to be important for patients and relatives, and they experience continuity of care by having a small number of trusted HCP who are available, provide multidisciplinary care, and regularly transmit information to the other HCP involved.<sup>29</sup> In addition, continuity is described as important to ensure patients' safety in palliative care.<sup>30</sup> HCP reported having a heavy workload during the COVID-19 pandemic, which affected their ability to cope with the demands of their work and to derive a sense of fulfilment from ensuring patients' safety and providing high-quality care. However, heavy workloads can contribute to burnout, high turnover rates, and discontinuity of care, all of which can threaten patient safety.<sup>31</sup> This may explain some of this study's results.

## Methodological Considerations

This study has some limitations. The response rate was low (RR 25.8%), which makes it difficult to generalize the results. The low response rate might be explained by the extensive questionnaire containing 160 items, and the fact that the QPP-PC questionnaire was included at the end. It is well known that response rates in questionnaire studies in general are low, often far below 50%,<sup>32</sup> but during data collection, the COVID-19 pandemic worsened, and the HCP were fully occupied. However, it can be considered as a strength that HCPs from three different contexts—including both specialist and community health care services—participated. This provided a more comprehensive description of the HCP's experiences of quality of care during the COVID-19 pandemic.

Another limitation is that the data collection method included both a paper- and web-based questionnaire, in accordance with the included wards' preferences. The data collection mode might influence the perceptions of care quality<sup>33</sup> and the results of the study.<sup>34</sup> Due to the relatively small number of paper-based questionnaires included in this study ( $n = 39$ ), it was not possible to perform a meaningful analysis to control for the effect of data collection methods.

The QPP-PC has been adapted from the generic instrument Quality from the Patient's Perspective (QPP) and its theoretical framework; it was psychometrically tested based on patient perspectives in the palliative care context.<sup>17,20</sup> The instrument used in the present study was adapted from the short form of the patient version by modifying the wording to align with the HCP perspective. The HCP version has not been psychometrically evaluated, but in several previous studies the QPP-PC and the generic version of the QPP have been adapted and used in the same way.<sup>22</sup> The internal consistency of the QPP-PC showed acceptable  $\alpha$  values ( $>0.7$ )<sup>23</sup> for all dimensions for the perceived reality and subjective importance scales; it was also in line with or slightly higher than that of previous studies using the QPP-PC and including HCP<sup>22</sup> and patients.<sup>20</sup>

## Conclusion

In this study, HCP from nursing homes, medical care units, and intensive care units perceived that quality of palliative care provided was not in line with what they perceived to be important for the patients. This indicates that during the COVID-19 pandemic it was challenging to provide high-quality palliative care. Results from this study show that the HCP scored subjective importance to be higher in all items than perceived reality, which could indicate a need for improvement in all areas. Examples of care areas for improvement are information about medication, opportunity to participate in decisions about medical and nursing care and continuity regarding receiving help from the same physician and nurse are examples of areas for improvement. Study results provide a better understanding of the challenges that HCP faced in providing high-quality palliative during the COVID-19 pandemic; this knowledge may be helpful in planning for further pandemics. To obtain a deeper understanding of HCP's experiences of palliative quality during the pandemic, further research should focus on qualitative design.

## Abbreviations

HCP, health care personnel; QPP-PC, Quality from Patients' Perspective – Palliative Care; RN, registered nurse; RR, response rate.

## Data Sharing Statement

The dataset generated and/or analyzed in this study is not publicly available but is available from the corresponding author upon reasonable request.

## Ethics Approval and Informed Consent

Approval was obtained from the Norwegian Centre for Research Data SIKT (NSD) (Reference number: 838156 and 634351), the Swedish Ethical Review Authority (dnr 2021-01623), the local data protection officer for the specialist health care services, and the head of the departments of the included care contexts. The study was conducted according to the principles of ethical research as laid out in the Helsinki Declaration.<sup>35</sup> The respondents were given written and verbal information about the aim of the study, the voluntary nature of participation, and the right to withdraw at any time before data were analyzed, with no need for explanation. Returning the completed questionnaire was considered to represent the respondents' consent to participate in the study.

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## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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## Disclosure

The authors report no conflicts of interest in this work.

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