



Electronic Research Archive of Blekinge Institute of Technology
<http://www.bth.se/fou/>

This is an author produced version of a journal paper. The paper has been peer-reviewed but may not include the final publisher proof-corrections or journal pagination.

Citation for the published Journal paper:

Title:

Author:

Journal:

Year:

Vol.

Issue:

Pagination:

URL/DOI to the paper:

Access to the published version may require subscription.

Published with permission from:

1 **Patient–nurse anesthetist interaction during**
2 **regional anesthesia and surgery based on video**
3 **recordings.**

4 **ABSTRACT**

5 This study aimed to interpret and describe the patient–nurse anesthetist (NA)
6 interaction during regional anesthesia. Video recordings conducted during
7 orthopedic surgery at a surgical clinic in Sweden formed the basis for the
8 study, in which three patients and three NAs participated. A hermeneutic
9 analysis was conducted on the data. The findings of the analysis showed that
10 the NA was in either present presence or absent presence in the patient’s visual
11 field during surgery. It also became visible that the NA’s professional actions
12 at times dominated the patient’s existential being in the intraoperative situation.
13 The findings conveyed insights about the patient–NA interaction that open up
14 possibilities for nurses to understand and reflect upon their own practice in an
15 expanded way. Using video recordings for reflections enables development of
16 professional skills that positively influence the care quality for patients during
17 regional anesthesia.

18

19 **Keywords:** Anesthesia care, patient–nurse anesthetist interaction, regional
20 anesthesia, video recording.

21 INTRODUCTION

22 Interaction and communication are significant aspects of professional care
23 giving.¹ According to Orlando, the definition of care giving is the interaction
24 between a nurse and a patient at a specific time and place. Until the patient's
25 need for help is understood, a sequence of interaction takes place between
26 nurse and patient.² Nursing care is an interaction between two people and the
27 lived experience between them.³ Interaction is oriented toward reaching
28 understanding. Therefore, it implies a communicative attitude that manifests
29 itself in a striving for mutual understanding, co-ordination, and coactions, not
30 in striving for control.⁴ Interaction can be used to describe the mutuality and
31 duality of the nurse–patient relationship and to describe the meeting of two
32 lifeworlds where the patient is the focus.⁵

33 One epistemological foundation for caring science is the lifeworld theory,^{6,7} in
34 which the lifeworld is the world as perceived by the individual.^{8,9} The nurse-
35 patient relationship is an encounter between two lifeworlds, where the nurse
36 and the patient meet as two subjective selves.¹⁰ Together, they create a
37 common sphere, portrayed by the French philosopher Merleau-Ponty as a joint
38 and mutual sphere in his description of the “between” in interpersonal
39 relationships.⁴ In this common sphere, nursing practices revolve around caring
40 for the patient's body, and nurses need to understand how corporeity holds
41 essential meaning for human experience.

42 A literature review found no studies that describe the patient–nurse anesthetist
43 (NA) interaction in the intraoperative setting during regional anesthesia.
44 Zanchetta and Bernstein point out that the number of surgical procedures now

45 possible employing regional anesthesia is increasing. The patient is awake, all
46 or most of the time, compared to surgical procedures under general anesthesia,
47 where the patient is unconscious.¹² In Sweden, the NA's care of patients under
48 regional anesthesia involves monitoring, observation, documentation, and
49 follow-up of the patient circulation, ventilation, and analgesia. In regional
50 anesthesia surgery, the NA establishes trust, confidence, and security, and
51 helps the patient to maintain a sense of control of his or her body during
52 surgery.¹³

53 The number of patients being awake during surgery is increasing, which results
54 in a new working environment for the NA. This adds to the importance of
55 numerous questions: How does interaction appear between the patient and the
56 NA during regional anesthesia? How can interaction be explained and
57 understood for the care of patients who are more or less awake during surgery?
58 What obstacles and/or possibilities are there for the patient–NA to interact?
59 And how does interaction affect the patient's existential situation during
60 regional anesthesia and surgery?

61 Accordingly, the aim of this study was to interpret and describe the patient–NA
62 interaction during regional anesthesia in the intraoperative period based on
63 video recordings.

64

65 **METHODS**

66 **Setting and Participants**

67 The study was carried out at a surgical clinic in a medium-sized city in
68 Sweden. Two nurses at the orthopedic clinic, previously unknown to the
69 authors, helped with recruiting patients scheduled for hip or knee replacement
70 surgery. The inclusion criteria set for participation were that the patients should
71 have knowledge of the Swedish language sufficient to interact with the NA and
72 that the surgeries were performed with regional anesthesia. Hip or knee
73 replacement operations were chosen as each takes about 2.5 hours and because
74 the patients are awake all or most of the time during either procedure.

75 Five patients were initially asked to participate in being video recorded. Two
76 participants declined; thus, the purposeful sample included three patients, who
77 were contacted by the first author to answer any questions. The three
78 participants were one male 85 year-old (Case 1) and one female 63-year-old
79 (Case 2), scheduled for knee replacement surgery, and one male 52-year-old
80 (Case 3) scheduled for hip replacement surgery. The patient in Case 1 had
81 previous experience of general anesthesia. None of them had previous
82 experience of regional anesthesia. The patients were given oral pre-medication
83 prior to their arrival at the surgical ward. The short-acting agent Propofol® was
84 administered intravenously to sedate the patients while the regional anesthesia
85 was applied; however, they were awake for communication and interaction
86 during the procedure. In Case 2 and Case 3 Propofol® was administered as
87 infusion continuously during surgery. During the ongoing surgery, the patient
88 in Case 3 asked for the infusion to be shut off.

89 The three different NAs in charge of each patient during surgery agreed to
90 participate after being provided with verbal and written information concerning
91 the study.

92

93 **Data collection**

94 Video recording was selected for this study to access detailed and precise
95 information on patient–NA interaction. Interaction consists not only of the
96 spoken language, but also of gestures, facial expressions, movements,
97 behaviors, and physical contact; these can be difficult to discern and record
98 simultaneously. This range of different interactions is difficult to anticipate;
99 they include transitory events that are hard to notice, and they can change
100 rapidly.^{14, 15} Video recording allows capturing of patients’ non-verbal
101 communications, which are often at least as important as words. In addition, it
102 offers an opportunity to watch the same interaction multiple times, detecting
103 details and correct possible mistakes that often go unnoticed in traditional
104 observation.¹⁶

105 Video recording has been used in nursing research in different clinical settings
106 in order to grasp the complexity of the patient–nurse- interaction. For example,
107 interaction during social dancing in the care of persons with dementia¹⁷ has
108 been described. Carers’ interactions with patients suffering from severe
109 dementia have been illuminated.¹⁸ Nurse-patient interactions during cancer
110 therapy¹⁹ and during physical examination in annual diabetes check-ups²⁰ have
111 also been examined.

112 Each patient was video recorded separately. The recording in Case 1 was
113 performed during the entire intraoperative period (i.e., started when the patient
114 arrived at the surgical ward and ended when the patient left the OR). In Case 2,
115 the recording started in the preparation room due to respect for the other
116 patients' integrity in the arrival hall. The operations in Case 2 and 3 were
117 performed one after the other, and there was a delay in moving the cameras.
118 Therefore, the recording of Case 3 started in the OR. Observation notes were
119 collected in all three cases by the first author during the intraoperative period.

120 Two video cameras were used. One was first used in the preparation room and
121 then moved and placed in a fixed position in the back of the OR to catch an
122 overall view. The other video camera was placed in a fixed position and
123 focused on the patient- NA interaction in the OR. The patient and the NA were
124 asked to pay as little attention as possible to the first author, who sat in a corner
125 of the OR taking observation notes.

126 In total, 7 hours and 20 minutes of video recording was made. The recordings
127 were transferred onto CDs that were dated and number-coded.

128

129 **Data analysis**

130 A hermeneutic approach inspired by Ricoeur²¹ and Gadamer²² was used to
131 enable interpretation and descriptions of patient–NA interaction. Hermeneutics
132 deals with interpretation and the meaning of the lived experience of being in
133 the world. It is not possible to understand another person's experience as
134 lived—that remains private; however, the meaning of the experience may,
135 according to Ricoeur, become public through interpretation. The purpose of the

136 interpretation is to reveal the meaning of a text (i.e., to interpret the world that
137 is opened up by the text) so we can learn more about phenomena in the
138 world.²¹

139 Ricoeur developed an interpretation theory where understanding and
140 explanation overlap and interact with each other.²¹ The analysis and
141 interpretation of a text involves three phases: naïve understanding, structural
142 analysis (explanation), and comprehensive understanding (interpretation).^{21,23}

143 In the present study, these three phases comprise a dialectic movement between
144 the whole of the video recordings and their parts, the transcribed text included.
145 The resulting hermeneutic arc between understanding and explanation²⁴ forms
146 a progression from naïve to critical understanding, in which the authors' pre-
147 understanding is taken into account.²¹

148 A hermeneutic approach requires an optimal consciousness of one's "*history*
149 *of effect*"²² (i.e., the researcher's personal pre-understanding) to increase the
150 validity of the suggested interpretations.²⁵ Openness is, according to
151 Gadamer,²² emphasized as a pre-condition for understanding something that is
152 not already present in a person's pre-understanding. In this study, the authors
153 tried to be aware of and suppress pre-understandings from previous studies.^{26,27}

154 To this end, the authors discussed the possible effects of preconceived notions
155 and ideas about the study's subject matter. According to Gadamer, researchers
156 must be open to what is not immediately given, to see "the otherness" in data
157 (i.e., see something not previously understood).²⁵ Trying to accomplish this,
158 Ricoeur's²¹ distancing, questioning, and critical approach to find overt and
159 hidden meanings in the data was used as a complement to Gadamer's notion of
160 openness.

161 **Analyzing process**

162 Data analysis started with numerous open viewings of the recorded material to
163 get a sense of the whole. In order to assess reliability, the authors discussed the
164 material in order to agree on what should be excluded. The excluded material
165 consisted of episodes with mere surgical scenes. After exclusions, 6 hours and
166 48 minutes videotaped material remained for analysis (Case 1= 2 hrs 20 min;
167 Case 2= 2hrs 29 min; and Case 3=1 hrs 59 min).

168 The recordings were then viewed again separately and replayed numerous
169 times. The next step was to divide each recording into episodes with the aim of
170 the study in mind. The lengthy selection of episodes was carried out by all
171 authors, viewing episodes individually and in the context of the recording as a
172 whole.

173 A total of 144 episodes were selected, ranging from 8 seconds to 6 minutes in
174 length. The first author transcribed the contents of the episodes as a text as
175 accurately as possible without intentional and conscious interpretation. For
176 example, if the NA put his/her hand against the patient's cheek, it was not put
177 into writing that the NA *softly* put his/her hand to the cheek, because the
178 recording itself could not show the nature of the contact in such detail. All
179 authors validated the transcription through a comparison with the videos, and
180 text was added (for example, observation notes about verbal and non-verbal
181 interaction).

182 The analysis of the transcribed text started by looking at the episodes
183 separately and then together with the text. This was repeated several times by
184 all authors with as open a mind as possible and as objectively as possible, in

185 order to grasp the naïve understanding. The naïve understanding from the
186 transcribed text was made into a new whole for each patient, presented below
187 as three separate cases. Quotations in italics are included to exemplify
188 interactions and events at a contextual level. The names used are fictional.
189 The next step, the structural analysis, was an analysis of each case seeking to
190 identify and interpret aspects relevant to the aim of the study. The
191 interpretation involved an inquiring attitude, asking questions regarding the
192 text. The interpretation was tested continuously against the text in a dialectical
193 movement. The structural analysis is presented below as an interpretation for
194 each case.
195 The last step, the comprehensive understanding²¹ was an interpretation of the
196 entire data. In this study, the naïve understanding (the cases) and the ensuing
197 interpretations, together with the authors' pre-understanding, were combined
198 into a comprehensive understanding.

199

200 **Ethical considerations**

201 The study was approved by the Local Ethics Committee of Lund, Sweden
202 (Reg. No. 114/2007). All participants and NAs were informed about the nature
203 of the study both verbally and in writing. Confidentiality was guaranteed; the
204 videos were only watched by the authors.

205

206 **FINDINGS**

207 **Case 1**

208 Tony will have a knee prosthesis implanted. Susan, the NA, welcomes him to
209 the surgical ward and helps him over to the operating-table. She informs him
210 that patches will be pasted onto his chest for ECG monitoring, that blood
211 pressure will be taken regularly, and that the regional anesthesia will be applied
212 by the anesthesiologist in the preparation room. Once they are inside the
213 preparation room, Tony, who lies on his back, looks around silently while
214 Susan continues with the preparations in silence. Tony asks Susan if he will be
215 awake during surgery. Without eye contact with Tony, she replies that he can
216 get sedatives, and asks him: *“How do you feel about that?”* Susan does not wait
217 for an answer, but disappears from Tony’s field of vision as he answers: *“I*
218 *don’t know. Only one does not feel anything, it is not so bad.”* *“Nope,”* Susan
219 replies, with her back to Tony.

220 The anesthesiologist enters the preparation room and introduces himself to
221 Tony, who now lies on his left side. The anesthesiologist and Susan untie the
222 patient shirt in the back, laughing together over something just between the two
223 of them. It then becomes quiet in the preparation room and Susan’s gaze is
224 seen to switch between the anesthesiologist’s preparation and the monitoring
225 equipment. The anesthesiologist sighs audibly and instructs Susan and the
226 assistant nurse as to how Tony is to lie on the operating table. The assistant
227 nurse takes hold of Tony’s legs and instructs him that his knees should be
228 drawn up towards his stomach as much as possible. At the same time, the
229 anesthesiologist sits quietly and gesticulates with both hands, indirectly
230 intimating that Tony should be more forward-leaning. Susan takes one hand

231 behind Tony's head and asks him to put his chin to his chest, while the
232 assistant nurse simultaneously pulls his knees to his stomach.

233 *"Now you get some local anesthetic on the skin,"* says the anesthesiologist.
234 Susan, who views the anesthesiologist and not Tony, repeats: *"Now it sticks!"*
235 It is quiet in the room until Tony asks: *"What are you doing?"* Susan replies:
236 *"We are trying to anesthetize you. It is a bit tight. Can you push out your back,*
237 *just like a cat?"* The anesthesiologist says with a sigh behind Tony's back:
238 *"That was not easy. I failed on this, absolutely incredible."* When the
239 anesthesia is finally applied, Tony is assisted to lie over on his back again.

240 *"How do you feel in your legs?"* asks Susan. *"I cannot move them,"* Tony
241 replies. *"Then it at least is at it should be,"* replies Susan. *"It is scary not being*
242 *able to move the legs,"* Tony says. Susan responds with humming and
243 continues with what she has on her hands. When Tony re-emphasizes, stating
244 that, *"I cannot move my legs, and that's what feels strange,"* Susan laughs and
245 says that it is evidence of the anesthetics being properly administrated,
246 *"otherwise we'd have to do it over again."*

247 Tony is now in the OR, lying on his back with both arms in armrests straight
248 out from the body. The surgery starts without anyone informing Tony, who is
249 awake. When Tony says something, he starts by bending his head back, as in
250 an attempt to see where Susan is. Susan, who is mostly behind Tony and out of
251 his sight, arrives at him as soon as he says something, and bends over him from
252 behind to talk "upside-down", face to face. When the conversation is over, she
253 takes a step back again to sit or stand behind Tony's head, out of his field of
254 vision. Several times during surgery, Susan is seen behind Tony's head while

255 both of them are looking around in the OR but not looking directly at each
256 other. At the end of surgery Susan assists the surgical team in clearing away.
257 No one informs Tony that the surgery has come to an end before he is brought
258 onto the recovery ward.

259 **Interpretation of case 1**

260 The patient–NA interaction in this case reflects the NA’s professional actions
261 and practical pre-surgical duties carried out close to the patient. At the same
262 time, the NA’s focus seems to be directed more towards the actual execution
263 than the patient’s stated experiences of the body and situation. When the
264 patient’s experiences are neither captured nor reflected upon, it can be
265 interpreted as if the NA’s practical duties are given a higher priority, thereby
266 hindering the patient–NA interaction.

267 Despite the close proximity to the patient, the NA is at times directed towards
268 the anesthiologist in an attempt to interpret the unspoken but gestured
269 directives given. The NA stands as to attention, waiting for further verbal or
270 non-verbal orders in the form of unstated or disguised commands, as a
271 camouflaged coordination, such as gestures, nods, and sighs from the
272 anesthiologist. This is a situation where the procedures put the interaction
273 and the patient perspective in the background. The patient may indirectly be
274 left outside without being invited to interact, and this could be interpreted as
275 inattentiveness to the patient’s being in the situation.

276 When the patient initiates interaction, the NA rarely approaches the patient
277 from the side, but from behind or from above the patient. The proximity over
278 the patient’s face does not seem to account consideration to the patient’s

279 vulnerability. From the patient's perspective, the NA's proximity could be
280 perceived as violating the boundaries of the patient's personal space. The
281 patient is not capable of regulating the distance, other than by turning his face
282 away from the NA.

283

284 **Case 2**

285 Beth will have a knee prosthesis implanted. The first thing she tells the NA,
286 Kent, in the preparation room is that she feels anxious as it is her first time ever
287 in a hospital. Kent says he understands her concerns, and continues to ask for
288 her name and social security number; he asks if she has any allergies and if she
289 used any medicaments other than the nutritional beverage in the morning. Beth
290 answers the questions, and concludes by reiterating that it is her first stay in
291 hospital and that she is nervous. Kent responds again that he understands her
292 without making eye contact with Beth.

293 *"I'm feeling so dry around the lips,"* says Beth. *"That does happen,"* replies
294 Kent with his back to her, while he fetches cords for the ECG monitoring,
295 which are then connected to Beth in silence. While Kent brings out an infusion
296 solution, he asks: *"Have you had an epidural ever before?"* *"No,"* replies Beth.
297 With eyes alternately at what he is doing and at Beth, he continues: *"You will*
298 *feel a little sting in the back and then you feel a little hot and heavy in the*
299 *legs."* He leaves Beth and throws away the outer wrapping of the infusion, and
300 then continues to give information at the same time as he connects the infusion:
301 *"During the operation, you may feel them [surgeons] touch you, but it does not*
302 *hurt."*

303 The anesthesiologist enters the preparation room and gets to introduce himself
304 before his phone rings. He leaves the room, and when he returns he sits down
305 behind Beth, who is now lying on her left side. *“It will get cold from the*
306 *alcohol,”* says the anesthesiologist before he disinfects her back. Kent helps
307 Beth to pull her legs up to her stomach while he asks her to bring down her
308 chin to her chest. He holds one hand behind her neck and asks *“How do you*
309 *feel, my friend?”* *“It feels good,”* Beth replies.

310 After the anesthetic is applied, Beth gets help to lie on her back again. *“My legs*
311 *are getting a bit heavy now,”* says Beth, and gets an *“Mm”* for an answer.
312 *“That is strange,”* she continues. *“Yes, they usually say it feels pretty weird,”*
313 replies Kent, without looking at her. *“I can’t move my legs,”* says Beth,
314 laughing. *“No matter how much you want, you can’t,”* replies Kent, while he
315 blends an infusion.

316 Beth is now in the OR, and she looks around quietly at her surroundings. At the
317 beginning of the operation, Beth is awake, and Kent approaches her from
318 behind. He leans forward over her head and their noses are only inches apart.
319 Kent’s hand touches her cheek, and he says something, after which Beth nods
320 in response. She then dozes on and off from the drugs she gets during the
321 operation. Kent takes out a chair and sits or stands close to Beth’s head. When
322 he stands up, it is to fix an apparatus alarm, control an infusion, or talk with the
323 surgical team, since Beth is not awake.

324 The operation has come to an end, and a ringing sound comes from the surgical
325 instruments that are gathered. Beth is now awake and is rolled out of the OR
326 and transported to the recovery room without anyone saying anything to her.

327 **Interpretation of case 2**

328 The NA's interaction with the patient appears more procedure-oriented than
329 patient-oriented. This manifests itself when the NA asks if the patient has had
330 an epidural before, although the patient repeatedly has said that this is the first
331 hospital stay ever. Despite the proximity to the patient, the NA does not pause
332 to address or reflect upon the patient's anxiety, but seems more focused on
333 implementing the preoperative procedures. The NA interacts indirectly with the
334 patient by saying he understands the patient, but does not explicitly confirm
335 this with the patient with, for example, touch or eye contact. The NA puts the
336 practical activities in the foreground, with the interaction and the care of the
337 patient's being (i.e., the patient's existential experience of the situation) pushed
338 into the background.

339 The patient-NA interaction is at times conducted in a routine way. The NA
340 responds to the patient in a generalizing manner by saying that "*that does*
341 *happen,*" without an explanation of this patient's experience. The patient's
342 experience is familiar to the NA, who seems not to bear in mind that, for this
343 patient, it is a new experience in this context. The statement becomes a general
344 statement on the patients' perceptions of regional anesthesia in the third
345 person; however, the statement itself does not affirm the individual patient's
346 experience in the here and now, and invites to no further interaction.

347

348 **Case 3**

349 Peter will have a hip replacement, and he now lies on his right side strapped to
350 the operating table in the OR. Janet, the NA, performs the routines and surgical

351 preparations without talking to Peter as she connects him to the monitoring
352 equipment. When preparations are finished, she places herself behind Peter's
353 head with her hands in her pockets. Peter asks if the operation has started, since
354 no-one has informed him, and continues; *"I feel nothing, so as yet it is*
355 *positive."* *"The only thing is that you can hear a throbbing sound,"* replies
356 Janet, who squats behind his head. She stands up to fix an alarming infusion
357 and then takes a step back again outside Peter's field of vision. After a while,
358 Peter says straight into the OR, *"Does anyone know how it has gone and how it*
359 *progresses?"* Janet is on the phone and cannot answer him. *"It's great to know*
360 *how far they have come. I'm curious,"* Peter continues, to which the surgeon
361 responds by telling him what is happening.

362 The monitor alarms, and Janet immediately responds to it. Sawing sounds are
363 to be heard out in the OR, and Peter does not seem to respond to this. However,
364 he then says; *"Sounds like something being chopped off, but I have no pain*
365 *anywhere."* *"You don't think it's unpleasant?"* asks Janet. *"No, I thought it*
366 *would be worse,"* says Peter, and gets a hum and haw from Janet before she
367 places herself behind him with folded arms, directing her gaze towards the
368 surgical team.

369 Peter turns his face to the ceiling and asks, *"Are all values normal?"* *"Yes,"*
370 replies Susan. *"Then I need not worry about it. You don't need to give me more*
371 *sleeping drugs now, because it seems interesting. I thought it would be worse*
372 *than it is."* Janet disconnects the infusion with sedatives, according to Peter's
373 wish. She remains standing behind him and leans over him from behind. Janet
374 talks to him directly from above, and Peter turns his head upwards towards the
375 ceiling in order to see Janet. She listens, nods, laughs, and fixes the intravenous

376 line; she then returns to stand behind Peter. Janet remains behind his head at
377 arm's length, with her hands in her pockets, and sometimes she stands on tiptoe
378 looking over the surgical drapes. Peter lies with his eyes closed, and Janet
379 looks alternately at him and then again at something behind the surgical drape,
380 and then sits down behind him outside his field of vision.

381

382 **Interpretation of case 3**

383 The patient-NA interaction in this case is mostly initiated by the patient;
384 however, this is partly affected by the patient's side position restricting head
385 movements for making eye contact, and partly by the NA's position outside the
386 patient's field of vision. Without eye contact, the patient does not know *who* or
387 *if* anyone is around to answer back. Despite this, the patient's directedness out
388 in the OR demonstrates an active engagement where the patient invites the NA
389 to interplay. When the patient's invitation is neither recognized nor confirmed,
390 the patient-NA interaction develops into a one-way communication where the
391 patient becomes an active transmitter without an equally active receiver.
392 Therefore, the NA may, to some extent, be regarded as absent, despite his/her
393 physical presence in the room.

394 The patient-NA interaction is hindered when the NA has his/her directedness
395 towards the other half of the plane (i.e., towards the surgical team). This
396 directedness away from the patient occurs even though the patient and the NA
397 are in close proximity and in each other's perceptual fields. The patient
398 indirectly shifts from being a figure in the center of action to be placed in the
399 periphery; this is reversed when the attempt to verbally interact is responded to

400 by the NA. Again, the patient is placed in the background when sounds caused
401 by surgical instruments are heard in the OR and the NA remains out of the
402 patient's visual field. For the NA, the sounds are natural and taken-for-granted,
403 not thought of from the patient's perspective. Another feature taken for
404 granted is the start and the end of surgery, which is not communicated to the
405 patient, but merely another part of an unknown (to the patient) agenda. This is
406 understood as if the NA expects the patient to interpret autonomously what is
407 happening instead of actively interacting and communicating with the patient.

408

409 **Comprehensive understanding**

410 The patient–NA interaction in the intraoperative context can be understood as a
411 movement between the nurse profession-related tasks, i.e., *the NA's*
412 *professional doing*, and *the patient's existential being* in the situation. During
413 the NA's professional doing, the NA is physically present in the patient's
414 immediate vicinity. However, proximity does not mean that interaction
415 automatically takes place between patient and NA. Interaction is hindered
416 when the NA's attention is directed towards interacting on an inter-professional
417 level. An asymmetric interaction arises, where the patient is unreflectively put
418 in the background without being invited for active participation and interaction
419 in the course of events. When the NA's doing is performed, and the NA leaves
420 the patient's perceptual field, the distance to the patient increases. Instead, the
421 monitoring equipment steps in and communicates on behalf of the patient.
422 When the measurable and objective body alarms sound, the NA re-enters, with
423 his/her doing close to the patient. The patient's thoughts and experiences
424 cannot alert the NA or be interpreted and looked on as objects on the monitor,

425 meaning that the patient can end up in the background visibly and audibly. The
426 patient's being becomes available if the NA has a *present presence* (i.e., if the
427 NA is physically present in the patient's proximity) in a *shared existential*
428 *caring space*, where interaction and communication is made possible on the
429 patient's terms.

430 When the NA in his/her professional doing has directedness towards the
431 patient's body as an object, the NA withdraws from the shared existential
432 caring space and gets into an *absent presence* in relation to the patient, thus
433 preventing NA interaction. This can make it difficult for the NA to respond
434 towards the patient's existential being.

435 By striving for an intertwining of the NA's doing and the patient's being
436 through the NA's present presence, the interaction is supported. The
437 intertwining in the shared caring space, where both parties can invite
438 interaction, creates opportunities for the NA to be there for the patient. If the
439 intertwining fails or is prevented, the patient is left alone in a space without
440 context.

441 **DISCUSSION**

442 **Methodological considerations**

443 The use of video gave a unique opportunity to revisit the reality of interaction
444 and gave information about interaction between participants in the study that
445 would otherwise have been mostly hidden. Detailed analysis of patient–NA
446 interaction could easily have been lost using another approach.

447 Nevertheless, some limitations in this study need to be mentioned. The sound
448 reproduction equipment in the video camera did not record all verbal
449 communication. This may have been avoided by using a separate microphone.
450 Another limitation was, at times, the lack of verbal communication between
451 patient and NA; however, Merleau-Ponty²⁸ points out that silence is a reminder
452 that our experiences cannot always be expressed in words. The small sample
453 limits the generalizability of the findings; however, according to Polit, Beck,
454 and Hungler,²⁹ the purpose of qualitative research is not to generalize the
455 findings, even though it may be accompanied by a criterion of transferability.

456 The trustworthiness and credibility of the study lies in the intention to describe
457 carefully how the steps of the process in the analysis were conducted. All the
458 authors of the present study have made conscious and sincere attempts to
459 reflect critically on the text. An attempt has been made to describe the process
460 of analysis in great detail. Therefore, knowledge obtained from this study can
461 be reflected upon and considered beneficial to caregivers within other health
462 care contexts with high technological and effective environments, such as
463 intensive care units or radiology units.

464

465 **Discussion of the findings**

466 *The patient's body as the focal point for interaction*

467 This study aimed to interpret and describe the patient–NA interaction during
468 regional anesthesia. The findings show how the patient's body is the focal
469 point, as it constitutes both the subject and the object of the intraoperative
470 activities. Sometimes, the NA focuses on a specific body area or on a more

471 technical aspect of a procedure, in which cases the patient's body becomes an
472 object. The body as an object turns into a subject when the NA establishes
473 interaction with the patient. That shows the double role of the body as an object
474 of care and a subject with which a relationship needs to be established. The
475 findings show that the NA, in addition to performing medical procedures, has
476 an important role to play in the form of interaction and existential support to
477 the patient in the caring encounter. When the NA confirms the patient in the
478 interaction, a link is created between them in a common caring space.

479

480 *Present presence vs. absent presence in the caring space*

481 Nursing implies constant presence near the patient,³⁰ and the sensory-based,
482 bodily dimension of an encounter with the other, face to face, is a prerequisite
483 for understanding the other as a whole^{31,32}. The meaning of being a patient
484 during regional anesthesia is formed in the close encounter with the NA by
485 having eye contact and face-to-face communication. The NA possesses the
486 power to balance the patient's feeling of proximity and distance in the
487 intraoperative period just by making eye contact or not. The act of balance is
488 achieved when the NA gives voice and meaning to what the patient
489 experiences through the body, and this is done in close proximity to the
490 patient.²⁶

491 However, the findings showed that the NAs were not always in the patients'
492 proximity or in their visual field. Instead, the NAs took ambiguous approaches,
493 varying from attention and care to distance and inattentiveness toward the
494 patients. This pendulation could limit efforts to care for the patient, resulting in

495 possible detachment from and reification of the body. During the pendulation,
496 the NA at times displayed a *present presence* in the patient's visual field and at
497 other times an *absent presence*, either in or out of the patient's visual field. The
498 present presence and the absent presence are not only a physical matter, but
499 interpreted as interpersonal and intersubjective modes of being. The present
500 presence was found when the NA was attentive and present for the patient,
501 willing to enter the patient's world and remain there. The present presence
502 emerged when the NA was in the patient's proximity, as well as in the patient's
503 visual field, creating a common existential caring space, as a non-physical
504 room, for interaction. The absent presence emerged, in or out of the caring
505 space, when the NA's directedness turned away from the patient as a subject
506 towards the NA's professional doing, towards the monitoring equipment or the
507 spoken and unspoken directions from the anesthesiologist.

508

509 ***Asymmetric interaction hindering interaction***

510 In the present study, the NA's change of directedness was interpreted as
511 grounds for an asymmetric interaction, where the patient's presumed central
512 position as a figure faded into the background. When the NA is in a state of
513 absent presence, it is often entrusted to the patient to take the initiative to draw
514 the NA closer back into the caring space, enabling interaction. In the absence
515 of interaction, it will often remain up to the patient to try to interpret what
516 happens in the situation if and when the NA is not visually available. The
517 distance between the patient and the NA not only causes a lack of interaction, it
518 also makes it difficult for the NA to respond to the patient's existential needs.

519 In addition, based on the entry and egress in the caring space, a tension could
520 rise as the proximity and distance were not created in a dynamic way, since the
521 NA could voluntarily enter in and out of the caring space, as compared to the
522 patient who could not move at all. The patient has no other physical option
523 than to verbally influence the distance, as opposed to the NA who can move
524 freely.

525

526 *To tune in on the patient to enhance interaction*

527 The findings showed that the patient was not always in the center of the NA's
528 directedness, prompting the question of how the patient can get the NA's
529 undivided attention unless the NA is tuned in on the patient. During surgery,
530 the basic life sustaining needs are the highest priority for the Swedish NA,
531 whether the patient is conscious or unconscious,¹³ and the NA's main
532 responsibility is to maintain the overall care, safety, and dignity for the
533 patient.³³

534 The NA's duty is to have a good grip on the technical as well as the caring
535 aspects of nursing practice.¹³ However, the technical equipment can easily
536 contribute to objectifying the patient.³⁴ Patients do not desire the body to
537 become an object of observation, but do wish to have visual access to the NA.²⁶

538 The findings showed how some intraoperative episodes—for example, with
539 sounds of sawing and drilling—are so familiar to the NA that he/she fails to
540 appropriately recognize the curiosity or even distress of the patient, therefore,
541 the NA remains out of the patient's visual field. Perhaps such moments being
542 taken for granted can be understood in the light of Husserl's

543 phenomenological theory of intentionality.³⁵ Husserl used the concept of
544 “intentionality” with no doubt about the inherent power of what he called the
545 “natural attitude”—i.e., the everyday immersion in one’s existence and
546 experience. This means that we take for granted that the world is as we
547 perceive it, and that others experience the world as we do.³⁶ In the act of
548 intentionality, the NA does not reflect upon the patient’s situation, as the NA is
549 merely in the everyday world in which s/he works.

550

551 **Conclusions and implications for nursing practice**

552 Findings from this study show how the NA plays a major role in the patient–
553 NA interaction during regional anesthesia and surgery. The findings could be
554 used to further educate nurses about the possible impact of their interaction and
555 communication behavior on the delivery of intraoperative nursing care. A
556 relevant step might be to show video-recorded interactions to help nurses to
557 reflect on their own practice in an expanded way. Such reflections will enable
558 nurses to access, understand, and learn through lived experiences, thus
559 developing professional skills in anesthesia nursing care. This, in turn, will
560 positively influence the intraoperative care quality for the patients.

561

562

563

564

565 **REFERENCES**

566

- 567 1. Nyström M. Aphasia—an existential loneliness: A study on the loss of
568 the world of symbols. *Int J Qual Stud Health Well-being*. 2006;1:38–
569 49.
- 570 2. Orlando L. *The Dynamic Nurse-Patient Relationship: Function,*
571 *Process and Principles*. New York: G.P. Putman's Sons; 1961.
- 572 3. Paterson JG, Zderad LT. *Humanistic Nursing*. (2nd ed.). New York:
573 National League for Nursing; 1988.
- 574 4. Habermas J. *The Theory of Communicative Action, Vol. 1. Reason and*
575 *the Rationalization of Society*. Boston: Beacon Press; 1984: 273–337.
- 576 5. Rask M, Brunt D. Verbal and social interactions in the nurse–patient
577 relationship in forensic psychiatric nursing care. *Nurs Inq*. 2007;
578 14:169–176.
- 579 6. Husserl E. *The crisis of European sciences and transcendental*
580 *phenomenology. An introduction to phenomenological philosophy*. (D.
581 Carr, Trans.). Evanston, IL: Northwestern University Press; 1936/1970.
- 582 7. Husserl E. *Cartesian meditations*. (D. Cairns, Trans.). The Hague:
583 Martinus Nijhoff; 1929/1977.
- 584 8. Husserl E. *Ideas pertaining to a pure phenomenology and to a*
585 *phenomenological philosophy*. (F. Kersten, Trans.). Dordrecht, The
586 Netherlands: Kluwer Academic Publisher; 1913/1998.
- 587 9. Merleau-Ponty M. *Phenomenology of Perception*. (C. Smith, Trans.).
588 London: Routledge Classics; 1945/2009.
- 589 10. Dahlberg K, Segesten K. *Hälsa & Vårdande i teori och praxis* [Health
590 and caring in theory and practice]. Stockholm: Natur & Kultur; 2010.

- 591 11. Picco E, Santoro R, Garrino L. Dealing with the patient's body in
592 nursing: Nurses' ambiguous experience in clinical practice. *Nurs Inq.*
593 2010;17:39–46.
- 594 12. Zanchetta C, Bernstein M. The nursing role in patient education
595 regarding outpatient neurosurgical procedures. *Axone.* 2004;25(4):18–
596 21.
- 597 13. Description of competence for Registered Nurse with Graduate
598 Diploma in Specialist Nursing-Anaesthesia Care. Available at:
599 <http://www.swenurse.se>. Accessed September 23, 2012.
- 600 14. Latvala E, Vuokila-Oikkonen P, Janhonen S. Videotaped recording as
601 a method of participant observation in psychiatric nursing research. *J*
602 *Adv Nurs.* 2000;31(5):1252–1257.
- 603 15. Parahoo K. *Nursing Research, Principles, Process and Issues.* London:
604 MacMillan Press Ltd.; 1997.
- 605 16. Halimaa S-L. Video recording as a method of data collection in
606 nursing research. *Vård i Norden.* 2001;21(2):21–26.
- 607 17. Palo-Bengtsson L, Ekman S-L. Social dancing in the care of persons
608 with dementia in a nursing home setting: A phenomenological study.
609 *Scholarly Inquiry for Nursing Practice.* 1997;11(2):101–118.
- 610 18. Hansebo G, Kihlgren M. Carers' interactions with patients suffering
611 from severe dementia: a difficult balance to facilitate mutual
612 togetherness. *J Clin Nurs.* 2002;11(2):225–236.
- 613 19. Anderson C, Adamsen L. Continuous video recording: a new clinical
614 research tool for studying the nursing care of cancer patients. *J Adv*
615 *Nurs.* 2001;35:257–267.

- 616 20. Edwall LL, Danielsson E, Smide B, Öhrn I. Interaction between
617 patients with type 2 diabetes and diabetes nurse specialist during
618 annual check-ups: A study using video recordings. *Internet Journal of*
619 *Advanced Nursing Practice*. 2010;11(1).
- 620 21. Ricoeur P. *Interpretation theory: Discourse and the surplus of*
621 *meaning*. Fort Worth: Texas Christian University Press; 1976.
- 622 22. Gadamer H-G. *Truth and Method*. London: Continuum Impacts;
623 1960/2006.
- 624 23. Ricoeur P. *From Text to Action. An Anthology on Hermeneutics*.
625 Stockholm: Brutus Östlings Bokförlag Symposium AB; 1993.
- 626 24. Ricoeur P. What is a text? Explanation and understanding. In V. M-J,
627 ed. *A Ricoeur Reader: Reflection and Imagination*. New York:
628 Harvester Wheatsheaf; 1991:43–63.
- 629 25. Nyström M, Dahlberg K. Openness and pre-understanding—a
630 relationship without hope? *Scand J Caring Sci*. 2001;15:339–346.
- 631 26. Karlsson A-C, Ekebergh M, Larsson Mauléon A, Almerud Österberg
632 S. “Is that my leg?” Patients’ experiences of being awake during
633 regional anesthesia and surgery. *J PeriAnest Nurs*. 2012;27(3): 155–
634 164.
- 635 27. Karlsson A-C, Ekebergh M, Larsson Mauléon A, Almerud Österberg
636 S. Only a whisper away. A philosophical view of the awake patient’s
637 situation during regional anaesthetics and surgery. *Nurs Philos*.
638 2012;13:257–265.
- 639 28. Merleau-Ponty M. *The Visible and the Invisible*. Evanston:
640 Northwestern University Press; 1986.

- 641 29. Polit DF, Beck CT, Hungler BP. *Essentials of Nursing Research—*
642 *Methods, Appraisal, and Utilization* (5th ed.). Philadelphia: Lippincott;
643 2001.
- 644 30. Williams A. A literature review on the concept of intimacy in nursing.
645 *J Adv Nurs*. 2001;33:660–667.
- 646 31. Levinas E. *Totality and Infinity*. Den Haag: Martinus Nijhoff; 1969.
- 647 32. Levinas E. *Entre nous. On Thinking of the Other*. New York:
648 Columbia University Press; 1998.
- 649 33. McGarvey HE, Chambers MGA, Boore JRP. Development and
650 definition of the role of the operating department nurse: A review. *J*
651 *Adv Nurs*. 2000;32:1092–1100.
- 652 34. Almerud S, Alapack R, Fridlund B, Ekebergh M. Caught in an artificial
653 split—A phenomenological study of being a caregiver in the
654 technologically intense environment. *Intensive Critl Care Nurs*.
655 2008;24:130–136.
- 656 35. Husserl E. *Logical investigations Vols. 1 & 2* (JN Findlay, Trans.). New
657 York, N.Y: Humanities Press; 1900/1970.
- 658 36. Dahlberg K, Dahlberg H, Nyström M. *Reflective Lifeworld Research*
659 (2nd ed.). Lund: Studentlitteratur; 2008.
- 660