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Prevalence Anxiety Family Members of Patients Admitted to Inpatient Hospital Room during Pandemic COVID-19

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Abstract

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BACKGROUND: Anxiety is confusion or worry about something that is not certain with unclear causes, causing feelings of uncertainty and powerlessness over the assessment of an object. Based on data at Izza Hospital, the number of patients who were hospitalized in July was 427 patients. The increasing number of patients in inpatient rooms during the COVID-19 pandemic caused psychological shocks to family members which caused anxiety.

AIM: The purpose of this study was to find out the description of family anxiety in the inpatient room during the COVID-19 pandemic.

METHODS: The design of this research is descriptive analytic with a cross-sectional approach. The population of this study was the entire family of patients who were treated in inpatient rooms during the COVID-19 pandemic, with a total sample of 96 respondents using a consecutive sampling technique. This study used a visual analog scale for anxiety (VAS-A) questionnaire to measure the respondents' level of anxiety.

RESULTS: The results of this study showed that the patient's family in the hospital inpatient room experienced mild anxiety 42 respondents (43.8%), with an average age of 40-44 years (n = 18; 0.19%), female gender (n = 51; 0.53), respondents' education (n = 53; 0.55), work (n = 57; 0.6), nuclear family (n = 83; 0.09).

CONCLUSION: The conclusion of this study that the prevalence of anxiety in family members mostly experienced mild anxiety with a total of 42 (43.8%) respondents.

Introduction

Coronavirus disease 2019 (COVID-19) is a new type of infectious disease and caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). According to the World Health Organization [1], COVID-19 is a disease that begins in animals and humans with initial symptoms of fever, weakness, cough, convulsions, and diarrhea. Humans exposed to severe cases of COVID-19 experience pneumonia, acute respiratory syndrome, kidney failure, and even death [2].

COVID-19 cases that occurred on a global scale as of December 15, 2020, showed a total of 79,734,164 including 1,749,528 deaths. Asia, there are 71,351,695 positive cases and 1,612,372 of them died (WHO, 2020). Indonesian Ministry of Health (2020) reported that in Indonesia, as many as 629,429 people were exposed and 19,111 died, while the number of COVID-19 patients in West Java was 68,066 and 1080 died.

The availability of inpatient rooms with adequate number of beds is very necessary in the handling and treatment of patients. Data from the preliminary study at Izza Hospital in July 2021 as many as 427 patients with positive and negative COVID-19 occupied the inpatient room with a total capacity of 50 beds.

The increasing number of patients in inpatient rooms during the COVID-19 pandemic caused various reactions, especially from family members including: Worried about the patient's condition, fear, and difficulty sleeping. If too much, these reactions can then cause psychological shocks so that many families feel panicked, stressed, and even anxious [5].

Research conducted by Pardede *et al.* [5]. Anxiety experienced by families in hospitalization is 36.7%. This can be caused by the length of the patient being treated [6]. Another thing that makes the family anxious is that the number of beds in the hospital is more than one so that the family is afraid of contracting the virus and then transmitting the virus to loved ones.

E - Public Health Public Health Epidemiology

The scale of anxiety felt by the family who accompanies the patient in the inpatient room can be the same, greater than the patient or even high at the same time. Anxiety experienced by the patient's family has an impact on decision making [6].

To overcome anxiety in the patient's family, interventions that can be applied to families who experience anxiety disorders are to provide spiritual therapy, namely, dhikr and prayer [7]. Another action that can be taken to reduce anxiety levels is to provide motivation and support so that families feel cared for [8].

Health workers need to know the range of anxiety experienced by respondents using a measuring tool in the form of a visual analog scale for anxiety (VAS-A) to maximize intervention actions where this instrument is considered the easiest, simplest, and can be understood by the family. VAS-A has also been proven to have tested its validity and reliability to measure anxiety so that it can be used in everyday life [9].

Based on the above background, the increase in patients during the COVID-19 pandemic caused various reactions from family members of hospitalized patients such as confusion which if too much can cause psychological shocks so that many families feel panicked, stressed and even anxious, and conducted a study on "Prevalence of Family Anxiety in Inpatient Rooms during the COVID-19 Pandemic" [10], [11], [12].

Materials and Methods

Samples

The research design is descriptive analytic. The population in this study were all families of patients who were treated in inpatient rooms during the COVID-19 pandemic. The researcher used consecutive sampling technique in selecting the sample, by determining the respondents according to the inclusion and exclusion criteria. The number of samples is 96. The instrument used is the visual analog scale for anxiety (VAS-A). VAS-A is a horizontal line with a length of 0–100 mm.

Value 0–4 mm = not anxious, 5–44 mm = mild anxiety, 45–74 mm = moderate anxiety, and 75–100 mm = severe anxiety [13].

The instrument has been tested for reliability and validity with a value of 0.996, which means that the VAS-A is a reliable and trustworthy anxiety instrument [14].

Data analysis in this study only used univariate analysis. The variables analyzed were age, gender, education, occupation, family relationship status with the patient, and anxiety scale. This study uses categorical data, presented in the form of a frequency distribution table. This research was conducted at Izza Cikampek Hospital, West Java, in October 2020–October 2021.

Results

Demographic characteristics (Table 1) show that the highest frequency of respondents based on age category is 40–44 years, totaling 18 respondents (18.8%), the most gender in this study is female as many as 51 respondents (53.1%), the majority of respondents' education is middle school ((SMA/SMK/MA)/high school) as many as 53 respondents (55.2%), working respondents as many as 57 respondents (59.4%), most of the status of family relationships with patients are nuclear families (husband, wife, father, mother, children, brothers, and sisters) totaling 83 (86.5%) of respondents.

The amount of anxiety experienced by the patient's family was categorized into no anxiety, mild anxiety, moderate anxiety, and severe anxiety (Table 2). Based on the results, it can be seen that the patient's family was not anxious, as many as 10 respondents (10.4%), 42 respondents mild anxiety (43.8%), moderate anxiety 29 respondents (30.2%), and 15 respondents (15.6%) experienced severe anxiety.

Anxiety based on the age category of respondents, the highest number of people with mild anxiety was 40-44 years, totaling eight people, while those aged 60-65 years who experienced moderate anxiety were not present (Table 3). The male gender is in the mild anxiety category with 25 respondents, while the female is in the moderate category with 17 respondents. Anxiety based on education shows that respondents with secondary education (SMA/SMK/MA/SLTA) who experienced moderate anxiety were as many as 17 people. Regarding the amount of anxiety based on work, the respondents who worked experienced mild anxiety as many as 28 respondents, while respondents who did not work experienced moderate anxiety as many as 13 respondents. The nuclear family of 14 respondents had severe anxiety and one respondent's extended family experienced severe anxiety.

Discussion

Demographic characteristics

This study shows that out of 96 respondents, the average respondent is in the 40–44 years old category. Previous research is contrary to this study which states that the age of 30 years waits for many sick family members in the inpatient room, namely, a number of 44 respondents (Mulyani, Mariyam, Alfiyanti, Pohan, 2019). However, some previous research results are in line with this study which states that families waiting for patients in the inpatient room are at the age of 41 years, totaling 304 respondents [15].

The results of this study indicate that most of the respondents are female, namely, 51 respondents (53.1%) and 45 respondents (46.9%). Several previous research results are in line with this study which states that families waiting for patients in the inpatient room are female, totaling 24 (72.7%) of 33 respondents and 18 female respondents (60%) of 30 respondents [16].

This study shows that the highest number of education levels is secondary (SMA/SMK/MA/SLTA) as many as 53 people (55.2%). A similar study also stated that as many as 14 (54%) of the 20 respondents had secondary education [17].

Some of the respondents who waited for patients in the inpatient room worked, as many as 30 (35.7%) of the 84 respondents. Another study stated that respondents who worked were 37 (74%) [18].

Research conducted by researchers showed that 83 (86.5%) of the 96 respondents who waited for patients in the inpatient room in this study were nuclear families. This research is in line with research conducted by Lishani and Jannah (2018) which states that nuclear family is the largest respondent in the study, as many as 20 respondents (60.6%) of 33 respondents. This is in accordance with the research location, where the watchdogs and those who visit are on average the nuclear family.

Respondent's anxiety category

Anxiety is confusion or worry about something that is uncertain with unclear causes causing feelings of uncertainty and powerlessness over the assessment of an object [19].

Table 1: Demographic characteristics of patients' families in inpatient rooms based on respondents' age category, gender, respondent's education, occupation, and family relationship status (n = 96)

| Demographic characteristics | F (%) |
|---|------------|
| Respondent age category (years old) | |
| 15–19 | 8 (8.3) |
| 20–24 | 10 (10.4) |
| 25–29 | 11 (11.5) |
| 30–34 | 13 (13.5) |
| 35–39 | 12 (12.5) |
| 40–44 | 18 (18.8) |
| 45–49 | 9 (9.4) |
| 50–54 | 8 (8.3) |
| 55–59 | 5 (5.2) |
| 60–64 | 2 (2.1) |
| Total | 96 (100.0) |
| Gender | |
| Man | 45 (46.9) |
| Woman | 51 (53.1) |
| Total | 96 (100.0) |
| Respondent's education | |
| No school | 2 (2.1) |
| Basic (SD, SMP/Tsanawiyah) | 28 (29.2) |
| Intermediate (SMA/SMK/MA/SLTA) | 53 (55.2) |
| College (S1 College) | 13 (13.5) |
| Total | 96 (100.0) |
| Respondent's job | |
| Work | 7 (59.4) |
| Does not work | 9 (40.6) |
| Total | 96 (100.0) |
| Family relationship status | |
| Nuclear family (husband, wife, father, mother, children, brother, and sister) | 3 (86.5) |
| Extended family (relatives and cousins) | 3 (13.5) |
| Total | 96 (100.0) |

Based on data from 96 respondents, the highest amount of anxiety was mild anxiety, 42 respondents (43.8%), no anxiety had the least number, namely, 10 respondents (10.4%). This research is in line with Yuanita *et al.* (2015) that the majority of respondents experienced mild anxiety, namely, 19 respondents (73%). The researcher observed that some of the respondents were tensed and more alert to the patient, because the patient had just come out of the operating room afraid of something happening, but was still able to think positively. This is confirmed by the theory Stuard (2016) that individuals who experience mild anxiety feel tension. In this situation, individuals learn to solve problems with a broad mindset, alert, and sharpen the senses, resulting in growth and creativity.

Respondents who do not have their anxiety can use existing and good coping sources. The researcher asked what activities made the respondent not anxious, the respondent only always did dhikr, surrendered to Allah whatever happened and thought positively. This statement is supported by the theory [19] that someone who can use existing coping sources, good and adaptive coping will reduce a person's level of anxiety.

Distribution of anxiety frequency based on demographic characteristics

Anxiety based on respondent age category

The results of this study showed that the highest number of people who experienced mild anxiety were 40–44 years, totaling eight people, while those aged 60–65 years who experienced moderate anxiety were not present. Respondents aged 40–44 years told that they always depend on God what will happen to the patient and always think positively. Meanwhile, the late teens mentioned that they were afraid of being exposed to COVID-19, both from patients and their families.

This research is in accordance with the theory (Gail W. Stuard, 2016) that late adolescence enters the psychological aspect where anxiety arises because of specific environmental stimuli so that it can make respondents think wrong or unproductive, and the inability to solve problems, causing maladaptive behavior. The theory above is reinforced by Sentana (2016) that anxiety disorders are more easily experienced by someone who is younger than someone who is older because of the acceptance of better coping mechanisms along with the increasing maturity of one's soul.

Table 2: Respondents' anxiety category in the inpatient room (n = 96)

| Anxiety level | F (%) |
|------------------|------------|
| No worry | 10 (10.4) |
| Mild anxiety | 42 (43.8) |
| Moderate anxiety | 29 (30.2) |
| Heavy anxiety | 15 (15.6) |
| Total | 96 (100.0) |

E - Public Health Public Health Epidemiology

Table 3: Distribution of anxiety frequency based on demographic characteristics

| No | | | | Total |
|-------|---|--|--|--|
| INO | Mild | Moderate | Heavy | |
| worry | anxiety | anxiety | anxiety | |
| | | | | |
| 2 | 3 | 2 | 1 | 8 |
| 1 | 2 | 6 | 1 | 10 |
| 1 | 5 | 4 | 1 | 11 |
| 1 | 5 | 3 | 4 | 13 |
| 3 | 6 | 3 | 0 | 12 |
| 2 | 8 | 3 | 5 | 18 |
| 0 | 5 | 3 | 1 | 9 |
| 0 | 5 | 2 | 1 | 8 |
| 0 | 2 | 3 | 0 | 5 |
| 0 | 1 | 0 | 1 | 2 |
| 10 | 42 | 29 | 15 | 96 |
| | | | | |
| 5 | 25 | 12 | 3 | 45 |
| 5 | 17 | 17 | 12 | 51 |
| 10 | 42 | 29 | 15 | 96 |
| | | | | |
| 0 | 0 | 1 | 1 | 2 |
| 3 | 13 | 6 | 6 | 28 |
| 7 | 23 | 17 | 6 | 53 |
| 0 | 6 | 5 | 2 | 13 |
| 10 | 42 | 29 | 15 | 96 |
| | | | | |
| 7 | 28 | 16 | 6 | 57 |
| 3 | 14 | 13 | 9 | 39 |
| 10 | 42 | 29 | 15 | 96 |
| | | | | |
| 8 | 38 | 23 | 14 | 83 |
| | | | | |
| | | | | |
| 2 | 4 | 6 | 1 | 13 |
| | | - | | - |
| 10 | 42 | 29 | 15 | 96 |
| | 2 1 1 1 1 3 2 2 0 0 0 0 0 0 0 10 5 5 10 10 7 3 10 10 10 10 10 10 10 10 10 10 10 10 10 | 2 3 1 2 1 5 1 5 3 6 2 8 0 5 0 5 0 2 0 1 10 42 5 25 5 17 10 42 0 0 3 13 7 23 0 6 10 42 7 28 3 14 10 42 8 38 | 2 3 2 1 2 6 1 5 4 1 5 3 3 6 3 2 8 3 0 5 3 0 5 2 0 2 3 0 1 0 10 42 29 5 25 12 5 17 17 10 42 29 0 0 1 3 13 6 7 23 17 0 6 5 10 42 29 7 28 16 3 14 13 10 42 29 8 38 23 | 2 3 2 1 1 2 6 1 1 5 4 1 1 5 3 4 1 1 5 3 4 1 3 6 3 0 2 8 3 5 0 5 3 1 0 5 2 1 0 2 3 0 0 1 0 1 10 42 29 15 5 25 12 3 5 17 17 17 12 10 42 29 15 0 0 1 1 1 3 13 6 6 7 23 17 6 0 6 5 2 10 42 29 15 7 28 16 6 7 23 17 6 0 6 5 2 10 42 29 15 7 28 16 6 3 14 13 9 10 42 29 15 8 38 23 14 |

Anxiety based on gender

Male gender experienced mild anxiety with a total of 25 respondents while women experienced moderate anxiety as many as 17 respondents. Researchers interviewed this to respondents because the majority of families are wives and children, so because of the close relationship between wife and husband or children and parents, it causes anxiety, thinks that something will happen to the patient, costs problems, no one takes care of the house and children.

This research is in line with Belayachi et al. [15]. Women are more affected by anxiety than men. This research is reinforced that anxiety occurs mostly in the female gender, this is because women are more sensitive to a problem [21]. This research is in accordance with the theory [22] that female sex can affect anxiety, where female epidemiology is at higher risk than male.

Anxiety based on respondent's education

The results of this study indicate that secondary education (SMA/SMK/MA/SLTA) experienced moderate anxiety as many as 17 people. Based on the results of interviews with researchers, the family experienced anxiety due to the patient's illness. This research is in line with the opinion of Haris *et al.* [21], respondents with secondary education, namely, high school, experience anxiety, this is due to lack of insight in obtaining information and solving problems.

Anxiety disorders experienced by respondents

can cause not being able to solve problems and functional disorders occur due to narrowing of the perception field and only focused on small things, so that someone who experiences anxiety behavior requires treatment or intervention, both pharmacological or non-pharmacological so that anxiety problems can be resolved [19].

This research is strengthened by the theory [23] that a person's education plays a role in shaping attitudes and behavior so that they can make patterns of perception and can make the best decisions for themselves. Highly educated people can live life in a purposeful way compared to people with low education.

Work-based anxiety

Based on the results of the study, it showed that respondents who worked experienced mild anxiety, namely 28 respondents, while those who did not work experienced moderate anxiety, namely 13 respondents. Based on the results of questions and answers that make respondents not working, they feel anxious because they think about hospital costs and women are the most respondents in this study and the location of this study is an area with a population of middle to lower economic status.

This research is in line with Grace [25] that if a person does not have a job, it will have an impact on his family because he cannot support life, especially if a family member is sick and hospitalized, if the family does not have a job, it will trigger increased anxiety because they think about the cost of treatment. In a research by Ikawati (2011), women are family members who are at home or not working so that when a family member enters the hospital they do not have more income because they have more time to accompany patients than men and this makes women feel anxious.

This research is strengthened by the theory [22] that the prevalence of anxiety can be influenced by economic status. A person who does not have a job nor has no income has unfavorable conditions, both physical and non-physical, in ensuring daily needs and optimal health.

Anxiety based on family relationship status

Most of the data in this study are nuclear families (husband, wife, father, mother, children, brothers, and sisters) experiencing severe anxiety, which are 14 people higher than large families (relatives and cousins), namely, one respondent. Researchers saw that based on the data, the average patient waiting at the hospital was the nuclear family.

According to Gerritsen *et al.* (2017), illness experienced by a loved one has a very large effect on family members. Families of patients who are treated or after discharge from the hospital experience

psychological symptoms such as acute stress, posttraumatic stress, general anxiety, and depression. These factors can make it difficult for family members to act as decisions for the patient.

This research was strengthened by Haris et al. [21] someone who has a family relationship with a patient such as a child or parent has a very strong bond, both emotional, psychological, and physical.

Conclusion

The prevalence of anxiety in family members mostly experienced mild anxiety with a total of 42 (43.8%) respondents. Anxiety based on the age category of the respondents, it was found that the highest number who experienced mild anxiety was 40–44 years totaling eight people, anxiety based on gender that the most mild anxiety was male with a total of 25 respondents, anxiety based on respondents' education found that the majority of secondary education (SMA/SMK/MA/SLTA) experienced moderate anxiety as many as 17 people, anxiety based on the respondent's work that respondents who worked experienced mild anxiety, namely, 28 respondents compared to those who did not work.

References

- World Health Organization. Western Pasific Region. Materi Komunikasi Risiko COVID-19 untuk Fasilitas Pelayanan Kesehatan. Geneva: World Health Organization; 2020.
- Ministry of Health Indonesia. Pedoman Pencegahan Dan Pengendalian Coronavirus Disease (COVID-19). Jakarta: Kementerian Kesehatan RI, Direktorat Jenderal Pencegahan Dan Pengendalian Penyakit (P2P); 2020. https://doi. org/10.22236/jmbp.v1i1.5708
- World Health Organization. WHO Coronavirus (Covid19). Geneva: World Health Organization; 2020. p. 21-49.
- Kementerian Kesehatan RI. Situasi Terkini Perkembangan. Indonesia: Kementerian Kesehatan RI; 2020.
- Pardede AJ, Hasibuan KE, Hondro HS. Caring behavior of nurses with family coping and anxiety. Indonesia J Nurs Sci 2020;3(1):14-22. https://doi.org/10.24853/ijnsp. v3i1.14-22
- Su MH. Hubungan lama rawat dan status pasien kritis dengan koping keluarga di ruang Icu Rsud sele be solu kota sorong. Inov Kesehat 2019;1(1):57-62. https://doi.org/10.36085/jkmu. v7i1.308.s37
- Sari PY. The effect of spiritual therapy on anxiety levels in families of stroke patients at the inpatient installation of C RSSN Bukittinggi. Islam Educ J. 2019;1:49-61. https://doi. org/10.36729/jam.v2i1.79
- Agustin WR, Fadlillah AN, Adi GS. The nurse's approach to the family of patients who experience anxiety because their family members are treated in the ICU. Husada Media Health Science 2019;8(2):53-8. https://doi.org/10.33475/jikmh.v8i2.183

- Facco E, Stellini E, Bacci C, Manani G, Pavan C, Cavallin F, et al. Validation of visual analogue scale for anxiety (Vas-A) in preanesthesia evaluation. Minerva Anestesiol. 2013;79(12):1389-95. https://doi.org/10.1016/j.ijom.2011.07.111 PMid:23860442
- Andas AM, Effendi C, Setyarini S. Validity and reliability test on sleep quality scale (SQS) instruments in indonesia version on cancer patients. Int J Res Pharm Sci 2020;11(4):7275-80.
- Mulyana ZA, Andas AM, Astuti P. Prevalence of family sleep quality in the inpatient room at Izza Karawang Hospital during the Covid-19 pandemic. J Surya Med 2022;7(2):190-8. https:// doi. org/10.33084/jsm.v7i2.2815
- Mulyana ZA. Prevalensi Kualitas Tidur Keluarga Di Ruang Rawat Inap Rs Izza Karawang Di Masa Pandemi Covid-19 Prevalence of Sleep Quality Family Member in Izza Karawang. Hospital Inpatient Rooms During The Covid-19 Pandemic; 2022. https://doi.org/10.33084/jsm.v7i2.2815
- Tamiya N, Araki S, Ohi G, Inagaki K, Urano N, Hirano W, et al. Assessment of pain, depression, and anxiety by visual analogue scale in Japanese women with rheumatoid arthritis. Scand J Caring Sci. 2002;16(2):137-41. https://doi.org/10.1046/j.1471-6712.2002.00067.x
 PMid:12000666
- Bengtsson M, Ohlsson B, Ulander K. Development and psychometric testing of the visual analogue scale for irritable bowel syndrome (VAS-IBS). BMC Gastroenterol. 2007;7:16. https://doi.org/10.1186/1471-230x-7-16
 PMid:17475020
- Belayachi J, Himmich S, Madani N, Abidi K, Dendane T, Zeggwagh AA, et al. Psychological burden in inpatient relatives: The forgotten side of medical management. QJM. 2014;107(2):115-22. https://doi.org/10.1093/qjmed/hct210
 PMid:24149282
- Family anxiety level of stroke patients in hospital. J Scientific Student of the Faculty of Nursing. 2018.
- Yuanita RS, Sutriningsih A, Adi WR. The relationship between family coping mechanisms and family anxiety levels of stroke patients in the adult inpatient ward at the Waluya Sawah Hospital, Malang. Nurs News. 2017;2(2):13241. https://doi. org/10.21776/ ub.jik.2016.004.02.10 18.
- Putri KC, Sulistyowati E, Indria DM. Analysis of the effect of anxiety and depression levels of patients and their families (caregiver) on the quality of life of cancer patients in Malang. J Bio Complementary Med. 2019;7:6168. https://doi.org/10.23917/ biomedika.v11i1.6168
- Stuard GW. Principles and Practice of Pshychiatric Nursing. 10th ed. St. Louis: Elsevier, Mosby; 2016.
- Yuanita RS, Sutriningsih A, Adi RW. Family coping mechanisms reduce the level of family anxiety of stroke patients. Care. 2015;3(2):18-25. https://doi.org/10.33366/cr.v3i2.479
- Haris A, Halimuddin H. Family anxiety in mechanically ventilated patients in intensive care. J Scientific Student of the Faculty of Nursing. 2017;2(3):1-8. https://doi. org/10.52020/jkwgi.v4i1.149
- 22. Kaplan HI, Sadock BJ. Textbook of Clinical Psychiatry. Jakarta: EGC; 2010.
- Notoatmodjo S. Metodologi Penelitian Kesehatan. Jakarta: Rineka Cipta; 2012.
- Grace NI. The Factors Affecting the Anxiety Level of the Patient's Family Treated in the ICU Room of RSUD Dr. MM Dunda Limboto; 2013. p. 119. https://doi.org/10.37831/ jik.v5i1.119
- 25. Gangka Y, Kadir A, Semana A, Nani S, Makassar H. Preoperasi Bedah Mayor Digestif Di RSUP Dr: Wahidin; 2013. p. 1-9.
- Ikawati CV. Therapeutic Communication of Nurses Relationship with Family Members on Levels of Family Anxiety in Patients Treated in the Critical Care Unit at Dr. General Hospital. Moewardi Surakarta; 2011. p. 114-21. https://doi.org/1051997/

E - Public Health Public Health Epidemiology

jk.v6i1.2

27. Gerritsen RT, Hartog CS, Curtis JR. New developments in the provision of family-centered care in the intensive care unit.

Intensive Care Med. 2017;43(4):550-3. https://doi.org/10.1007/s00134-017-4684-5 PMid:28124085