Introduction

Palliative patients face grief, loss, the feeling of loneliness and exclusion, fear of death and suffering, and frequently long for the presence and support of a caring other. Literature shows that social support (Dunkel-Schetter, 1984; Wortman, 1984) and the emotional help of a family or a senior doctor are important for cancer patients (Slevin et al., 1996). A “home-like” environment, empathy, and attention facilitate the patients’ narratives (Stanley and Hurst, 2011) and allow palliative patients to develop genuine, often intimate, relations with their doctors, which can improve the quality of their lives and dying (Higginson et al., 2013).

According to Bowlby (1969) and others (Collins and Read, 1990; Fraley and Shaver, 2000; Hamilton, 2000; Hazan and Shaver, 1987; Main, 2000; Roisman et al., 2002; Sroufe, 2005; Waters et al., 2000), it is in the early

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Abstract

We tested the association between the palliative patient’s attachment style and the patient–doctor relationship, by means of Revised Adult Attachment Scale and a self-designed, patient–doctor relationship questionnaire. The study included 110 (52 M, 58 F) cancer, hospice patients, aged 36–80 years. We observed 54 percent of secure, 18 percent of dismissive, 9 percent of preoccupied, and 19 percent of fearful styles. Securely attached patients developed significantly ($p < .05$) better relationships with doctors than insecure patients. There was no difference in the quality of the patient–doctor relationship among dismissive versus preoccupied versus fearful patients. We argue that attachment theory should be applied in palliative care to improve patients’ quality of life and dying.

Keywords

attachment dimensions, attachment style, cancer patient, palliative care, patient–doctor relationship

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childhood that humans learn to establish intimate bonds with others (Hamilton, 2000). The psychological and emotional bond with another person (i.e. attachment figure) who protects and supports the child is referred to as attachment (Ahnert et al., 2006; Ainsworth et al., 1971; Bowlby, 1969). Attachment triggers regulatory behavior aimed to keep tight bond and closeness to the attachment figure, which might increase the child’s chances of survival (Bowlby, 1969). Separated from its caregiver, the infant tries to keep the caregiver close by searching, crying, and clinging, that is, activating attachment behavior. With time, the child learns which of its behaviors re-establishes the proximity of the attachment figure (internal working model develops: expectations, beliefs). The way the caregiver responds can shape the child’s pattern of behavior, specific for the relationship (which turns into an attachment style). In short, attachment is a learned, motivational system toward concrete people (Bowlby, 1969; Schaffer and Emerson, 1964).

No response or inadequate responses to the child’s needs induce the child’s insecurity. If the child is not able to re-establish the sense of security, an insecure attachment style might develop (Figure 1). When the caregiver is accessible and responds to the child’s needs with empathy, it builds the child’s sense of security, confidence, and being loved (Figure 1) (Bowlby, 1988). In other words, caregiver–infant interactions in stress situations induce individual attachment patterns, described by Ainsworth et al. (1978) as secure, anxious-resistant, and anxious-avoidant (three-category scheme).

Individual differences in attachment behavior were explored also in adults (Brennan et al., 1998; Hazan and Shaver, 1987). In situations of threat, sadness or loneliness, adults execute attachment behavior as a sort of “emergency reaction” (Harms, 2011), dependent and informative of one’s attachment style (Mikulincer and Shaver, 2007). Analogically to patterns observed in children, Hazan and Shaver (1987) described secure, anxious-resistant, and anxious-avoidant attachment patterns in adult romantic relationships. Brennan and Shaver (1995) proposed two main dimensions of adult attachment: anxiety and avoidance. The extent to which one is avoidant and anxious determines one’s attachment style (secure people are low on those dimensions). Bartholomew and Horowitz (1991), Brennan et al., (1998), and Collins (1996) listed four attachment styles in adults (four-category scheme), presented in Figure 1.

The continuity of attachment pattern from childhood to adulthood was subjected to debate (Bartholomew and Horowitz, 1991; Collins, 1996; Fraley, 2002; Fraley and Roberts, 2005; Fraley and Shaver, 2000; Lewis et al., 2000; Mikulincer and Shaver, 2007; Pierce et al., 1992; Rothbard and Shaver, 1994; Troy and Sroufe, 1987; Zimmermann et al., 1997). That notwithstanding, Bowlby’s idea of attachment was investigated in adults in reference to variables such as different sociodemographic parameters (Adamczyk and Bookwala, 2013; Bartholomew and Horowitz, 1991; Fraley and Davis, 1997; Fraley and Shaver, 1998; Harms, 2011; Hazan and Shaver, 1987; Zeifman and Hazan, 2008), health condition (McWilliams and Bailey, 2010), health practices (Davis et al., 2015), eating habits (Faber and Dubé, 2015), and disorders (Pace et al., 2016), in pregnant women (Sabuncuoglu and Basgul, 2014), medical patients in general (Cassedy et al., 2015; Ciechanowski et al., 2002; Maunder and Hunter, 2009), or with medically unexplained symptoms (Ciechanowski et al., 2002; Schroeter et al., 2015), in anxious (Albers and Hadjistavropoulos, 2014) or difficult patients (Taylor et al., 2000), diabetics (Ciechanowski and Katon, 2006), post-surgery (Gur-Yaish et al., 2014), and cancer patients (Clark et al., 2011; Hinnen et al., 2014; Holwerda et al., 2013; Klast and Philippon, 2016; Lo et al., 2009; Mack et al., 2009). Sirois and Gick (2014) pointed out that attachment style might be crucial in patients who have chronic arthritis and by the same token are subjected to physical and emotional suffering which triggers their social, attachment behavior. They found that stress, low-perceived social support, and poor coping effectiveness are correlated with insecure attachment styles. Similarly, coping with stress and keeping a positive body image was higher in secure women than in the
insecure ones, among breast cancer patients (Favez et al., 2015).

Attachment was also studied in the light of relations patients develop with their physicians. The need of associating the “secure haven” with one’s doctor was observed by Frederiksen et al. (2010), who reported patients are attached and—reluctant to change their general practitioners even if dissatisfied with the services. Holwerda et al. (2013) embarked on a study on 130 cancer patients 3 and 9 months following their diagnosis. They found that insecure patients reported less trust and satisfaction with their doctors, and higher distress than secure individuals. Ognibene and Collins (1998), as well as Simpson et al. (1992), showed that the expectancy to receive help is higher in secure than in insecure individuals. Hillen et al. (2015) showed videos of oncologists’ consultations, differing in the oncologists’ behavior, to 147 female cancer patients and 167 healthy women. They observed that the oncologists seemed less trustworthy to individuals with high avoidance scores. Similar conclusions, though drawn from a case-series, were made by

Figure 1. Development and division of attachment styles (four-category model: secure, preoccupied, dismissive, and fearful), based on Bartholomew and Horowitz (1991), Brennan and Shaver (1995), and Collins (1996); copyright/by Katarzyna Stachowiak.
Petersen and Koehler (2006). They, on one hand, report a 75-year-old woman with secure attachment pattern, who communicated openly and entered in a sincere, cooperative relationship with her doctor, and on the other hand—several other cases of patients with insecure attachment styles negatively affecting the patient–doctor communication. Ciechanowski et al. (2001) examined patient–provider communication, treatment adherence, and the severity of diabetes expressed as glycosylated hemoglobin level in 367 subjects. They found that the dismissive attachment style had significant, negative impact on patient–doctor communication, as well as on the treatment adherence and metabolic control of diabetic patients.

While medical literature is rich in reports on attachment and patient–doctor relations, there is a paucity of studies investigating these concepts in palliative medicine, except for theoretical considerations (Loetz et al., 2013) or case-control studies (Petersen and Koehler, 2006). To the best of our knowledge, there is no cross-sectional study investigating patient–doctor relationship in a palliative care. At the same time, there is a strong need to verify whether the relations patients develop with their doctors in palliative care can be in any way associated with a patient’s attachment style, and whether the distribution of secure and insecure patterns in palliative patients resembles the distribution in other populations. This is important due to the specificity of patients in palliative care who, unlike most of other patients, are confronted with a fatal blend of stress, pain, suffering, and the awareness of approaching and inevitable death.

The aim of our study was to verify whether the patient’s attachment style is related to the quality of the patient–doctor relationship (assessed by the patient) in palliative care. We also verified whether there was a correlation between particular attachment dimensions and the patient–doctor relationship. Finally, a tangential goal we wanted to achieve was to introduce and test our self-designed patient–doctor relationship questionnaire. To the best of our knowledge, there is no such questionnaire validated and used across other studies in palliative care.

**Method**

The study included 110 (52 M, 58 F) native Polish, advanced cancer patients of the inpatient and out-patient hospice units, with MiniMental score ≥ 25, and aged 56.16 years on average (min: 36, max: 80 years, standard deviation (SD) = 17.34). The Revised Adult Attachment Scale—Close Relationship Version (RAAS, Collins, 1996) was used to assess the patients’ attachment styles. Completing RAAS consists of selecting, on a five-point Likert scale, the extent to which one agrees with a given statement (e.g. “I find it difficult to allow myself to depend on others”). RAAS was selected, as this particular questionnaire has its Polish version, validated by Palus (2010).

In addition to RAAS, the patients completed a self-designed, “patient–doctor relationship” questionnaire, composed of seven questions (see: Supplementary Appendix 1). It served to assess the quality of the relationship between a patient and his or her attending physician, understood as the degree of trust and security (see: Supplementary Appendix 1). The participants rated, on a five-point Likert scale, the extent to which they agree with a given statement (e.g. “I easily made contact with my attending physician”). The patient–doctor relationship scores served to assess and categorize the quality of the relations between patients and their attending physicians. The study was approved by a local Ethical Committee and all the patients signed an informed consent prior to participating in this study.

**Data analysis**

Each participant’s attachment style (secure, preoccupied, dismissive, or fearful) was calculated based on the RAAS scores obtained within three dimensions: CLOSE, DEPEND, and ANXIETY (Collins, 1996), according to the formula available at the UCSB Close Relationships Lab.¹ Next, Likert scale scores obtained for each question in
the patient–doctor relationship questionnaire were summed up and this sum was treated as the patient–doctor relationship score (0–35 points). Based on the scores, the patient–doctor relationships were categorized as follows: poor (0–14 points), acceptable (15–21 points), good (22–28 points), or excellent (29–35 points). Split-Half Reliability was calculated using the Spearman–Brown formula. Content Validity of individual items (I-CVI) and Content Validity of the overall questionnaire (S-CVI) were calculated based on the ratings of 12 experts.

The statistical analysis was conducted by means of the IBM SPSS Statistics software. The Shapiro–Wilk test served to verify the normality of data distribution. Subsequently, the non-parametric Kruskal–Wallis test (testing the impact of the attachment style on the patient–doctor relationship score) and Wilcoxon signed-rank test (testing the differences in patient–doctor relations between the pairs of groups with different attachment styles) were run. Spearman’s rho was calculated to verify whether the participants’ score within the CLOSE, DEPEND, and ANXIETY dimensions correlate with the score which the participants obtained in the patient–doctor relationship questionnaire. $p < .05$ was considered statistically significant.

**Results**

In all, 59 out of 110 participants had the secure attachment style, 10—preoccupied, 20—dismissive, and 21—fearful. Figure 2 illustrates the distribution of attachment styles among the patients.

We observed relatively high reliability ($r = .72$) and validity of the questionnaire designed to assess the quality of patient–doctor relations: S-CVA/Ave was equal to .86, and I-CVI values for particular questions are presented in Supplementary Appendix 2.

Figure 3 shows the share of patients with different relations with the doctors, within each attachment style sample: secure, preoccupied, dismissive, and fearful.

As shown in Figure 3, patients with the preoccupied attachment style developed the poorest, while secure patients—the best relations with their doctors. There was a statistically significant difference in patient–doctor relationship scores among patients with different attachment styles. The Kruskal–Wallis test rendered the following result: $\chi^2(3) = 8.34; p = .015$, with a mean rank patient–doctor relationship score of 46.13 for secure, 25.75 for preoccupied, 30.36 for dismissive, and 34.53 for fearful attachment style. The post hoc analysis with Wilcoxon signed-rank test with a Bonferroni correction revealed statistically significant differences between the secure versus preoccupied ($z = 6.12, p = .008, r = .58$), secure versus dismissive ($z = 5.8, p = .006, r = .55$), and secure versus fearful.
(z=2.01, p=.011, r=.58) pairs. Yet, the test showed that the differences in patient–doctor relationship between the preoccupied versus dismissive (z=1.02, p=.101, r=.19), preoccupied versus fearful (z=2.04, p=.082, r=.19), and dismissive versus fearful (z=1.18, p=.094, r=.11) styles were statistically non-significant.

Next, patients with the preoccupied, dismissive, and fearful attachment styles were collected in one group, representing the “insecure” attachment style, as opposed to the secure one. Figure 4 presents the share of different patient–doctor relations in the populations of patients with secure and insecure styles.

The difference in patient–doctor relationship scores between patients with secure versus insecure attachment styles was then tested. Wilcoxon signed-rank test with a Bonferroni correction revealed a statistically significant difference between the insecure and secure attachment styles (z=7.14, p=.022, r=.68).

Finally, the participants’ CLOSE, DEPEND, and ANXIETY scores were correlated with the patient–doctor relationship score, using Spearman’s test which revealed statistically significant, week-to-moderate, positive correlations between the CLOSE scores and the patient–doctor relationship scores (rs=.250, p=.021), as well as between the DEPEND and the patient–doctor relationship scores (rs=.251, p=.027). There was also a statistically significant, moderate, negative correlation observed between the ANXIETY scores and the patient–doctor relationship scores (rs=−.434, p=.027). No effect of age or gender was observed.

**Discussion**

In this study, the attachment patterns’ distribution (Figure 2) was similar to the ones observed by Ainsworth et al. (1971) in children and by Hazan and Shaver (1987) in adults (60% of secure individuals observed in both studies). Holwerda et al. (2013) reported 65 percent of secure styles among newly diagnosed cancer patients. Similar distribution was shown by Cozzarelli et al. (1988), who tested coping with abortion in women (in four-category model: 40% secure, 32% fearful, 9% preoccupied, and 19% dismissive). Although this may be a matter of speculation, the similarities among results obtained in studies described above (including our study) indicate that the distribution of attachment styles is comparable across nationalities, cultures, and populations (while palliative patients constitute a unique population, facing the approaching death). The distribution of attachment styles being similar among palliative patients and other populations might also indicate that the terminal illness and the near-death experience are not the factors solely affecting attachment patterns. Such similarities also show that attachment and attachment-related behavior are important components of life even in populations close to death, and/or possibly major components of the process of dying. To the best of our knowledge, this is the first study to determine the distribution of attachment styles in Polish palliative patients.

While our results are informative of the patient–doctor relationship, they do not clarify whether the attending physician functioned as an attachment figure for a patient. That notwithstanding, patients’ attachment to their physicians was reported, for example, by Frederiksen et al. (2010). Importantly, none of the patients assessed his or her relationship with the doctor as “poor” in our study. Both in the case of secure and insecure patients, there was a significant share of “good” and “excellent” relations but
the good-to-excellent ratio was reverse in these groups (see Figures 3 and 4).

The main conclusion this study points out to is that the patient’s attachment style can be associated with his or her relationship with the attending physician in palliative care (assessed from the patient’s perspective). Secure attachment style was associated with better relationships. However, there was no effect of preoccupied, dismissive, and fearful attachment styles on the patient–doctor relations observed. Nevertheless, when collected together as an “insecure” patients, the preoccupied, dismissive, and fearful individuals had significantly worse relations with their doctors than secure patients. These observations were also reflected in the correlations between particular attachment dimensions and patient–doctors’ relationship scores. Such results are in accordance with what was reported by Holwerda et al. (2013) and Hillen et al. (2015). They also, to some extent, corroborate the observations of Ognibene and Collins (1998), as well as Simpson et al. (1992), who showed higher expectancy to receive help in secure than in insecure individuals. Petersen and Koehler (2006) also pointed out that secure patients develop better relations with their doctors than insecure individuals. Importantly, in the study by Peterson and Koehler (2006), the patient–doctor relationships were subjectively assessed by a health provider, while adult attachment was estimated by means of the Adult Attachment Interview (AAI). In our study, the patient’s perspective on the patient–doctor relationship was applied, and attachment styles were determined based on the self-report questionnaire. Thus, our method focused on the patients’ “conscious attitudes towards, or awareness of behaviors in, experiences of separation, loss, intimacy dependence and trust” (Ravitz et al., 2010), rather than on interviews. The patients’ point of view was also taken into account by Ciechanowski et al. (2001), as well as by Sirois and Gick (2014). Interestingly, Sirois and Gick (2014) found no difference in stress-coping efficacy between avoidant versus anxious patients with arthritis, which somehow corresponds to the results obtained in this study, indicating no difference in patient–doctor relations among insecure styles. However, Sirois and Gick (2014) report that while coping efficacy was comparable in anxious and avoidant styles, perceived social support, that is, the way patients rated the availability of supporting social resources, was significantly higher in anxious than in avoidant patients. This suggests that a possibly more detailed analysis of patient–doctor relations and attachment-related variables is still needed to accurately illustrate the specificity of attachment behavior and social interactions of palliative patients (see section “Limitations of the study”).

Therapeutic implications

Some insecure patients may be perceived as “the difficult patients.” Thompson and Ciechanowski (2003) comment on this group and give suggestions on cooperating with them in family doctors’ clinical practice. A need for attachment theory implementation to medical practice was also noticed by Maunder and Hunter (2016). The researchers postulate to design a questionnaire for measuring attachment-related perceptions of cooperation with health-care providers (excluding psychotherapists). They also underline the influence of doctors’ attributes on patients’ experience.

Miller (2008) points to the usefulness of attachment theory in communicating with, diagnosing, and treating somatically preoccupied patients in primary care. Finally, Tan et al. (2005) argue that the patient’s attachment style can contribute to (but is not exclusively responsible for) the patient–doctor relationship. As shown above, several authors give indications to adapt the patient–doctor communication according to the patient’s attachment style.

It can also be assumed that in the course of their education and subsequent work in interdisciplinary teams, palliative care doctors become particularly attentive to successful communication, and the spiritual, emotional, social, and physical needs of their patients. That notwithstanding, our study shows that patients’ attachment styles correlate with their
assessment of the relationships with attending physicians (insecure patients had worse relations with their doctors than the secure ones, although these relations were never “poor,” irrespective of the group). Therefore, it seems vital to further popularize knowledge on attachment styles among palliative care doctors and/or introduce attachment theory into their specialization courses.

Researchers also emphasize the influence of attachment style on patients’ adherence (Thompson and Ciechanowski, 2003). Ciechanowski et al. (2001) report a positive impact of secure attachment style on the adherence of diabetic patients. Yet, in the course of the progressing, incurable disease, the therapeutic-to-symptomatic treatment ratio gradually changes; toward the end of life, palliative care becomes predominant and the quality of the patient’s life is not achieved via perfect patient’s adherence. The challenge lies in understanding the needs and wishes of the patient confronted with the real terror of death. Palliative patients are aware of the approaching end of their lives, and feel the need to achieve happiness, comfort, and closure, which does not necessarily come in accordance with perfect adherence. Adherence cannot be required from the vast majority of palliative patients in the advanced stage of disease. While in general practice, diabetology and other specialties, understanding the patient’s attachment may increase the patient’s adherence (Ciechanowski et al., 2001) to the doctor’s recommendations, in palliative care, it might subserve the doctor’s adherence to the patient’s needs. The specificity of the palliative care provider lies partially in that he or she needs to accurately diagnose the patient not only in the physical but also in the psychological sense. McLean and Hales (2010) underline this importance by reporting a case of a cancer patient—understanding the patient’s attachment style and previous childhood experience was crucial for her treatment.

Attachment theory should be carefully and sensibly applied in palliative care due to the latter’s specificity. Similar to the child–caregiver (and contrary to the romantic) one, the relationship between the palliative patient and the doctor is one-sided, where the doctor might serve as the attachment figure. Furthermore, if successfully achieved, the patient’s sense of security allows for the exploration of not external but internal world. Finally, while other close relations develop with time, patient–doctor relationships are frequently characterized by a rapid onset (e.g. on admission) and relatively fast development, which contributes to the challenges doctors, as potential attachment figures, have to face.

Conclusion
This study shows that a patient’s attachment style, or the attachment dimensions, can be treated as a correlates of the patient’s relationship with his or her doctor in palliative care. At the same time, the patient–doctor relationship plays a crucial role in the patients’ holistic treatment and their quality of life and dying. Therefore, it seems vital to investigate the ways in which patients with different attachment styles can be offered professional help aimed at preparing the medical team for the patient’s needs and reactions. These kinds of interventions could be particularly important and beneficial to patients in palliative care: in these patients, the extreme burden of a terminal illness, as well as physical and emotional suffering, may trigger attachment behavior. When prepared for the specificity of an attachment behavior, palliative care doctors can “level the playing field” for all patients. Implementing attachment theory into palliative care practice can be perceived as adding an important element to the mosaic of a human drama.

Limitations of the study
This article reports on the first step we took to accurately assess the importance of a patient’s attachment style on his or her relationship with the attending physician in palliative care. As we aimed at verifying both the attachment style and the quality of this relationship from the patient’s perspective, we decided to use RAAS (Collins, 1996)—a validated and massively used questionnaire, as well as to introduce our own
patient–doctor relationship questionnaire (as, to the best of our knowledge, there is no such questionnaire validated and used across other studies in palliative care). We are aware of the fact that the latter questionnaire needs to undergo the process of proper validation and be possibly enlarged in the future (although the length of such questionnaires should also be taken into consideration in palliative care due to the patients’ condition). We also admit that it might be beneficial to replace the cross-sectional nature of this study with, for example, a longitudinal design, to better investigate the variables in question. We aim at testing more participants, collect additional information that would allow to investigate the tested group better in the future, and investigate the quality of patient–doctor relations also from the latter’s perspective.

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Note

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