

Relationship with siblings as a predictor of empathy and humor styles in early adulthood

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Summary

Aims: Sibling relationships in early adulthood are explored relatively rarely. The aim of the current study was to describe this relationship and its importance for interpersonal functioning of young adults.

Methods: The study included 100 participants at an average age of 27.08 years (SD=4.38);

60% were women (n=60) and 40% were men (n=40). The following tools were used in the study: Adult Siblings Relationships Questionnaire – Short Form, the Empathic Sensitiveness Scale and Humor Styles Questionnaire.

Results: The study revealed that sisters have relationships with siblings that are based on warmth, and achieve higher average results in empathic care and personal distress and lower average results in self-defeating humor style than brothers. Relational variables with predictive value for empathy and humor styles were identified in both groups. In brothers, they explained a higher percentage of variance in results.

Discussion: The study indicates that the quality of a relationship with adult siblings significantly influences a number of dimensions of interpersonal functioning.

Conclusions: The study expands on psychological knowledge of family psychology and can be applied in family therapy practice.

siblings, early adulthood, empathy, humor style

INTRODUCTION

Social relationships with siblings, although considered to be one of the main factors in the process of adaptation of a human being to the surrounding reality, have so far aroused less research interest than other types of interactions in the family system, e.g. mother – child, par-

ent – child [1]. Existing work on interpersonal attitudes of siblings in early adulthood focuses on describing and explaining the relationship's structural features, connected with birth order, gender and age configuration in sibling dyads [2,3]. The least attention is paid to sibling relationships in early adulthood¹ in connection with their social function [4,5].

In our opinion, the quality of social functioning is an exceptionally significant element of life, especially for a young person, who is in a period when they have to assume numerous new social roles. According to Havighurst [6], ear-

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¹ Early adulthood is a period between the ages of 18–20 and 30–35 [4].

ly adulthood predominantly means assuming roles related to such duties as choice of spouse, learning to live with them, raising children and housekeeping, starting professional work, finding a close social group and taking on civic responsibilities. The challenges that occur at the threshold of adulthood require that a person develops proper social skills and builds lasting and positive interpersonal bonds. A social sphere is established, alongside the creation of own identity, and becomes its integral part. In the process of identity development, two of its aspects are shaped: personal identity² and social identity³[7]. Both identity types are correlated and form a basis for the creation of one's identity connected with social roles played, such as civic, professional or parental identity. It is emphasized that the quality of fuller participation of a young person in social life is an important predictor of the perceived level of satisfaction with life and determines both mental and physical health [4,5].

In related literature, the concept of social functioning refers to a young person's life skills and the degree to which they realize their potential in social relationships with other people [8]. In psychologists' opinion, proper social functioning is a basis for normal general functioning of a human being. In Maslow's humanistic concept [9], satisfying the more fundamental needs, for example the social needs of security, belonging and esteem, determines a person's striving for self-realization. By definition, these needs are mainly met in the family environment, but they can also be satisfied in work environment. In-work friendships or a sense of belonging to a group have a positive influence on the effectiveness of activities taken up by people. A failure to meet the needs on this level can lead to a sense of loneliness and isolation, which has a negative impact on a person's social functioning. According to Baumeister & Leary [10], social relationships are connected with a sense of belonging and the need to create and maintain at least some lasting, positive and important interpersonal relationships. In the authors' opin-

ion, these contacts should be relatively frequent and pleasant as well as acknowledging the other person's perspective, i.e. empathic.

Numerous factors are cited as determining the quality of social bonds of an individual, such as: personal traits, intellect, health, attachment styles and circumstances [11,12]. It is believed that the influence of family environment together with personality factors creates a unique way of social functioning of a young person. One of the more important environmental factors influencing interactions between people is family experience. According to the attachment theory, the nature of a social relationship between a person and individual members of their family system affects their specific patterns of behavior. These are first demonstrated in contacts with the closest people and then transferred onto relationships with people outside the family system [12].

It is assumed that social abilities learned in childhood are the sum of relationship elements, including psychological dispositions and abilities to receive and send messages, consistent with both situation patterns and personal goals of an individual [13]. According to Janiszewska [14], social abilities encompass two areas: a sense of empathy and an ability to interact with other people. A person who uses empathy in social contacts understands other people, is interested in their problems, can see their diversity and social attitudes. And the ability and willingness to create interactions require a basic, positive attitude towards other people as well as a tendency to demonstrate agreement, mitigate conflicts, catalyze changes and create a possibility of mutual cooperation [14].

Style of humor plays an invaluable part in establishing and maintaining social contacts with other people. In the theory of humor styles [15] we can find both adaptive and non-adaptive forms of humor. Adaptive humor styles include affiliative humor and self-enhancing humor. The first is of an interpersonal nature and is associated with a tendency to tell funny stories and jokes as well as to banter with other people

² Personal identity is related to creating "Self", where the self is perceived as someone unique, with individual beliefs and values, specific goals, interests and opinions. It allows a person to maintain stability and consistency of behaviors in different circumstances [7].

³ Social identity appears when a person develops a sense of community with members of another social group and identifies with their values, opinions or goals [7].

in order to reduce tension and strengthen interpersonal ties. On the other hand, self-enhancing humor has an intra-psychological direction. It involves a tendency to look at life facetiously and see its funny aspects. Both forms of humor have an adaptive nature since their aim is to make contacts with other people and assume a positive attitude to life [15].

Non-adaptive forms of humor (self-defeating and aggressive humor) are related to improper social functioning, as a result of which an individual may harm themselves or others, since non-adaptive ways of applying humor can lower their own self-esteem or the self-esteem of people they interact with. Non-adaptive humor can be aimed at improving one's own well-being at the expense of others and assume aggressive forms such as slander, humiliation, ridicule [15].

In this study, the influence of family environment on the social development of a young person was analyzed in the context of the quality of the person's relationship with their siblings. In order to ensure a uniform understanding of key terms, it was assumed that "siblings" shall mean persons who are genetically related to each other, connected by family bonds and who have at least one common natural parent. The term "interpersonal relationships with siblings" was described as the result of interactions between siblings based on activities and communication [16].

Growing up with siblings, an individual learns from a young age how to establish and maintain contacts with another person despite encountering numerous obstacles. Members of the sibling subsystem are naturally obliged to develop abilities to solve conflicts and find compromises. Therefore, it is assumed that people who maintain stable and warm relationships with siblings have well-developed social abilities. Such people can express feelings and provide support in difficult situations. Having established a close contact with their brother or sister, they share family problems with them as well as giving them advice and sharing from their own experience. They also take on some responsibility when dealing with conflict in the family [17]. It is hoped that such individuals will be more likely to create interpersonal relationships based on warmth also with people outside their family system. That means that persons who have

warm relationships with siblings will not only demonstrate a higher level of empathy but also more often apply adaptive styles of humor than people who maintain qualitatively different relationships with their adult siblings.

AIMS

The first aim of the study was to determine the quality of relationships with siblings, empathy and humor styles in groups of sisters and brothers in early adulthood. The study was based on the assumption that sibling bonding in early adulthood has a significant impact on empathy and humor in relationships with other people, significantly contributing to the quality of interpersonal functioning. The second objective was to identify relational predictors of empathy and humor styles. I put forward the following hypotheses:

1. There is a difference between sisters and brothers in the quality of relationships with siblings, empathy and humor styles.
2. Adult sibling relationships determine empathy and humor styles of young adults.

MATERIAL AND METHODS

Participants

The study included 100 people, 60% women (n=60) and 40% men (n=40). Participants were adults aged 18 to 36 years (M=27.08; SD=4.38). They provided information on their relationship with their adult siblings, aged at least 18.

MEASURES

Three questionnaires were used in the study: Adult Sibling Relationship Questionnaire-Short Form, Interpersonal Reactivity Index, Humor Styles Questionnaire (HSQ).

- **Adult Sibling Relationship Questionnaire-Short Form (ASRQ-SF)**

ASRQ-SF [18] assesses how the person perceives their behavior and feelings towards their siblings and the siblings' perception of their behavior and feelings towards the person. The questionnaire consists of 61 items, which make

up three main factors of sibling relationships: warmth (similarity, intimacy, affection, admiration, emotional support, instrumental support, acceptance, knowledge), conflict (opposition, domination, quarrel, competition) and rivalry (maternal rivalry, paternal rivalry). All ASRQ items are assessed on a Likert scale, from “hardly anything” (1 point) to “extremely” (5 points). The psychometric properties of the ASRQ are good and enable conducting studies [18].

- **Interpersonal Reactivity Index.**

The questionnaire measures empathy, which includes the following factors: empathic care, perspective taking and personal distress. It consists of 28 items. Answers are marked on a 5-point Likert scale. The instrument is characterized by good criterion and construct validity [19].

- **Humour Styles Questionnaire (HSQ)**

HSQ assesses the four styles of humor: affiliative, self-defeating, self-enhancing and aggressive. It consists of 32 items. Answers are marked on a 7-point scale. The psychometric properties of the HSQ are good [20].

[c]Study questionnaire

The questionnaire was designed to obtain demographic and social data (age, gender, residence, marital status, family of origin, economic situation, professional activity, relationship between the respondent and their siblings).

PROCEDURES

The study was carried out from December 2016 until March 2017, in Łódź province, Poland⁴. Respondents were informed about the aims of the study, its anonymous nature and our intention to use results only for scientific purposes. Completing the questionnaire took approximately 40 minutes.

Statistical analyses

Means and standard deviations were used for data presentation, and Student’s t-test, regression test coefficient and SPSS software version 24 were used in data analysis. The significance level was set at $p < 0.05$. Based on mean and SD values, Cohen’s d effect size value was determined: small from 0.20, medium from 0.50 and large from 0.80 [21].

Results

This was a comparative study. The results show that there are statistically significant intergroup differences in relation to siblings, empathy and preferred humor styles. The differences between sisters and brothers regarding the stress dimension are presented in Table 1.

Table 1. Siblings’ relationships among sisters and brothers on a number of assessed variables

| Variables | Sisters | | Brothers | | t | df | p | Cohen's d |
|----------------------|---------|-------|----------|-------|--------|----|-------|-----------|
| | M | SD | M | SD | | | | |
| Warmth | 124.93 | 28.44 | 112.35 | 26.04 | -2.241 | 98 | 0.027 | -0.461 |
| Similarity | 6.72 | 2.02 | 6.00 | 1.91 | -1.778 | 98 | 0.079 | - |
| Intimacy | 19.90 | 0.75 | 16.73 | 5.17 | -2.804 | 98 | 0.006 | 0.858 |
| Affection | 21.90 | 5.56 | 20.23 | 5.22 | -1.512 | 98 | 0.134 | - |
| Admiration | 13.97 | 3.71 | 13.53 | 3.28 | -0.610 | 98 | 0.543 | - |
| Emotional support | 21.25 | 5.48 | 18.65 | 5.04 | -2.397 | 98 | 0.018 | 0.493 |
| Instrumental support | 5.35 | 2.14 | 5.08 | 1.72 | -0.680 | 98 | 0.498 | - |
| Acceptance | 14.60 | 2.76 | 14.30 | 2.83 | -0.527 | 98 | 0.600 | - |
| Knowledge | 21.25 | 5.09 | 17.85 | 5.36 | -3.204 | 98 | 0.002 | 0.650 |
| Conflict | 26.07 | 10.03 | 27.10 | 10.46 | 0.496 | 98 | 0.621 | - |
| Quarrel | 5.90 | 2.68 | 6.45 | 2.66 | 1.007 | 98 | 0.316 | - |
| Opposition | 10.75 | 4.68 | 11.20 | 5.15 | 0.453 | 98 | 0.652 | - |

⁴ The study was conducted by Alicja Cieślak, a participant in my seminar.

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|------------------|-------|------|-------|------|--------|----|-------|---|
| Competition | 2.88 | 1.65 | 3.38 | 2.13 | 1.233 | 98 | 0.222 | - |
| Domination | 6.53 | 2.80 | 6.08 | 2.39 | -0.849 | 98 | 0.398 | - |
| Rivalry | 30.33 | 4.12 | 30.83 | 3.17 | 0.637 | 98 | 0.525 | - |
| Maternal rivalry | 16.63 | 2.55 | 12.15 | 2.09 | -0.995 | 98 | 0.322 | - |

Sisters obtained significantly higher average scores for the warmth variable than brothers. Cohen’s d showed a weak correlation between the variables (d-Cohen=0.461). In addition, sisters obtained higher average results in the dimensions of intimacy, emotional support and knowledge than brothers. The highest Cohen’s d rates were recorded for intimacy (d-Co-

hen = 0.858). Table 2 shows the differentiation in terms of empathy among sisters and brothers. Statistically significant differences were found between the groups in terms of empathy. Sisters received higher average scores than brothers in the dimensions of personal distress and empathic care (Cohen’s d was on a medium level).

Table 2. Empathy scores in sisters and brothers

| Variables | Sisters | | Brothers | | t | df | p | Cohen’s d |
|--------------------|---------|------|----------|------|--------|----|-------|-----------|
| | M | SD | M | SD | | | | |
| Empathic care | 35.95 | 5.48 | 33.35 | 6.16 | -2.211 | 98 | 0.029 | -0.446 |
| Personal distress | 23.25 | 4.84 | 20.20 | 4.71 | -3.120 | 98 | 0.002 | -0.639 |
| Perspective taking | 30.68 | 4.32 | 29.63 | 5.24 | -1.101 | 98 | 0.274 | - |

The results show that although there are no statistically significant differences between sexes in the use of adaptive forms of humor, disparities occur in the use of non-adaptive forms of humor (Table 3). Brothers obtained

higher average scores than sisters for self-defeating humor. Cohen’s d effect size values suggested a medium correlation between the variables. The results confirm the validity of hypothesis 1.

Table 3. Styles of humor among sisters and brothers in the study

| Variables | Sisters | | Brothers | | t | df | p | Cohen’s d |
|-----------------------|---------|------|----------|------|-------|----|-------|-----------|
| | M | SD | M | SD | | | | |
| Affiliative humor | 40.58 | 7.94 | 40.93 | 6.61 | 0.225 | 98 | 0.822 | - |
| Self-enhancing humor | 33.72 | 5.69 | 33.98 | 6.44 | 0.211 | 98 | 0.833 | - |
| Aggressive humor | 24.93 | 5.87 | 27.50 | 7.04 | 1.976 | 98 | 0.051 | - |
| Self-defeating humour | 25.22 | 5.72 | 29.23 | 7.36 | 3.056 | 98 | 0.003 | 0.608 |

In order to estimate the effect of individual sibling relationship dimensions on empathy and a choice of humor style, a stepwise regression analysis was carried out (Tables 4 and 5).

The input-independent variables were individual sibling relationship dimensions and input-dependent variables were empathy and humor styles.

Table 4. Results of a series of step analyses among sisters

| Independent variables | R | R ² | B | β | p | Dependent variables |
|-----------------------|-------|----------------|-------|-------|-------|---------------------|
| Conflict | 0.263 | 0.069 | 0.144 | 0.263 | 0.042 | Empathic care |
| Acceptance | 0.096 | 0.009 | 0.777 | 0.271 | 0.037 | Affiliative humor |
| Competition | 0.302 | 0.091 | 1.818 | 0.377 | 0.004 | |

| | | | | | | |
|------------|-------|-------|--------|--------|-------|----------------------|
| Similarity | 0.301 | 0.090 | -0.875 | -0.301 | 0.020 | Aggressive humor |
| Admiration | 0.122 | 0.015 | 0.504 | 0.327 | 0.006 | Self-defeating humor |
| Opposition | 0.375 | 0.141 | 0.495 | 0.405 | 0.001 | |

The results indicate that there are many relational predictors of empathy and humor styles. However, they explain the studied dependent variables only to an extent. In sisters, the dimension of opposition determines the occurrence of self-defeating humor in 14.1% ($\beta=0.405$). Self-defeating humor is also conditioned by admiration, but to a lesser extent (1.5%; $\beta=0.327$). For empathic care, the pre-

dictive variable was conflict (6.9%; $\beta=0.263$). The dimensions of competition and acceptance determined affiliative humor (9.1%, $\beta=0.377$ and 0.9%, $\beta=0.271$ respectively) and aggressive humor (9%; $\beta=-0.301$). No predictive value of adult sibling relationship dimensions was discovered for the variables of perspective taking, personal distress and self-enhancing humor ($p > 0.05$).

Table 5. Results of a series of step analyses among brothers

| Independent variables | R | R ² | B | β | p | Dependent variables |
|-----------------------|-------|----------------|-------|---------|-------|----------------------|
| Emotional support | 0.363 | 0.132 | 0.444 | 0.363 | 0.021 | Empathic care |
| Acceptance | 0.128 | 0.016 | 0.761 | 0.326 | 0.030 | Affiliative humor |
| Competition | 0.351 | 0.123 | 1.151 | 0.371 | 0.014 | |
| Acceptance | 0.358 | 0.128 | 0.814 | 0.358 | 0.023 | Self-enhancing humor |

Considering the results of the study in the brothers' group (Table 5), some of the dimensions of relationships with siblings in early adulthood have a predictive value for empathy and preferred styles of humor. Empathic care is conditioned by emotional support in 13.2% ($\beta=0.363$). Acceptance explains self-enhancing humor in 12.8% ($\beta=0.358$). Competition and acceptance determined affiliative humor in 12.3% ($\beta=0.326$) and 1.6% ($\beta=0.371$) respectively. The same variables determined affiliative humor in the sisters' group. No predictive value of adult sibling relationship dimensions was discovered for the dependent variables of aggressive humor, self-defeating humor, perspective taking and personal distress ($p > 0.05$).

DISCUSSION

The study confirms that warm relationships with siblings positively influence empathy and preferred humor styles in adults. Basing on Bowlby's attachment theory [12], Baumeister and Leary's theory of belongingness [10] and Martin's concept of humor styles [15], the study has shown that specific bonds between siblings create conditions necessary for early development

of interpersonal relationships and good adaptation to life in society.

The study revealed different characteristics of adult sisters and brothers in respect of the quality of sibling relationships, empathy and humor styles. Sisters demonstrated more closeness, warmth, emotional support and tended to have more knowledge about their siblings than brothers. What is also of note are differences in the course of the process of socialization in women and men, who occupy different positions and play different roles in social networks. The caring, listening and family consolidation roles are more prominent in women than men. Emphasizing the importance of domesticity and family obligations makes women demonstrate, to a greater extent, behaviors based on familism and is probably strongly connected with the dimensions of positive adult sibling relationships [22].

These results are congruous with those obtained by Riggio [2]. In a sample of 711 young adults of an average age of 23.5 years, women expressed more positive emotions towards their siblings and more often demonstrated favorable behaviors in the relationship than did men. Participants also declared more positive feelings towards and interactions with their sisters than brothers [2]. The fact that women demonstrate

greater closeness in relationships with siblings may result from a higher level of their socialization and emotional expression in comparison with men [23]. However, contrary to the present study, Sherman et al. found that young women demonstrated a higher level of conflictuality in relationships with siblings than young men [24]. Further research should be carried out to clarify this inconsistency.

Intergroup differentiation was also noted in respect of two dimensions of empathy – personal distress and empathic care. Sisters obtained results that indicated a higher level of empathy than brothers in respect of showing sympathy for people affected by misfortune and experiencing anxiety and distress when faced with the suffering of others. It was found that women were more empathic than men, and empathy, except for assertiveness, is considered to be one of the biggest gender differences in terms of personality [25]. However, it should be emphasized that this mainly concerns adults since some studies carried out in children indicate similarity rather than differences in this respect. Moreover, results in this area are often contradictory [26]. Additionally, stronger correlation has been noted between empathy in mother and daughter than between empathy in father and son [27].

Although the brothers and sisters in the study did not differ significantly in respect of adaptive styles of humor, there was a clear differentiation in respect of non-adaptive styles. Unlike sisters, brothers more often applied self-defeating humor, which consists in expressing disregard for oneself demonstrated through making ridiculing remarks about oneself and, due to ingratiation motivations, lowers the quality of interpersonal relationships with other people. Similar results were obtained by Charytonik & Hornowska [20] in a study on men's humor. They showed that although there were no distinct gender differences in using the adaptive forms of humor, men obtained higher average scores for non-adaptive humor (aggressive humor) than women. Non-adaptive styles were strongly correlated with hostility, apprehension, depression, low self-esteem and insufficient abilities to build intimate relationships [15].

As a result of a series of step analyses in both compared groups, relational variables

with a predictive value for empathy and humor styles were determined. The variables explained a higher percentage of variance in results in the group of brothers than in the group of sisters. What is interesting, in both groups an adaptive form of humor (affiliative humor) was determined by two dimensions: competition and acceptance. Based on these results, we can conclude that competition between siblings, when accompanied by acceptance (of a sibling), encourages a tendency to tell funny stories and spontaneously banter with people in order to establish rapport and reduce tension [15]. It is worth mentioning that in brothers, the dimension of acceptance determines self-defeating humor, which is underpinned by the need to be accepted, to a higher degree than affiliative humor. In sisters, self-defeating humor was determined by admiring siblings and perceiving them as annoying and mocking. Moreover, in the group of sisters, failure to detect agreement with their siblings' personality and views determined the use of aggressive humor.

Although in both examined groups it was possible to determine relational predictors of the dimension of empathic care, they were of distinct nature. For brothers, showing emotional support in a sibling dyad was associated with a more frequent expression of sympathy in the face of suffering of other people. On the other hand, for sisters, a tendency to express sensitivity to the suffering of others was determined by conflictual relationships with siblings.

The present study has shown that the quality of adult sibling relationships has a significant influence on selected dimensions of interpersonal functioning, which include empathy and humor styles. The study looked into issues that have not been sufficiently studied either in Poland or elsewhere [1,4,5,16,28,29]. As well as strengths, the study had several limitations. The first concerned the fact that it only included persons who had voluntarily consented to take part in the project on sibling relationships. This can be considered as preliminary information about the persons' commitment in their relationships with siblings. It is likely that adults who were not in touch with their brothers or sisters might not have been interested in participating in a survey concerning this issue. Second, we used tools of a self-descriptive nature, which, al-

though appreciated, have numerous limitations. Therefore, it might be necessary to refine these conditions for future studies. In the longer term, qualitative research is planned to enhance the current study. It would also be valuable to conduct a cross-cutting study, covering people in middle and late adulthood. The last limitation is the study's status as a pilot, which does not allow us to generalize conclusions to the whole population of young adults.

Nevertheless, it is hoped that this pilot will spur on further scientific research in this field. Special attention should be paid to the following issues: transmission of parental styles of humor considered in the context of the quality of sibling relationships, empathic behaviors of parents in the aspect of providing support by siblings and socializing influences in connection with empathic behaviors and humor styles in members of the sibling subsystem. Further inquiries in this area can make a significant impact on the course of family therapy process. Furthermore, the study not only contributes to family psychology, but also can be applied by parents, particularly those who raise more than one child. Taking care to foster proper relationships between siblings, they can contribute to shaping positive ties between their children, thus determining the quality of their interpersonal functioning in young adulthood. A high level of empathy in the sibling subsystem and strengthening the use of adaptive styles of humor undoubtedly facilitates the ability to build close, intimate relationships with people outside the family system. In the concept of humor styles, adaptive styles are connected with demonstrating positive emotions, high self-esteem, ability to enter into intimate relationships and to provide social support. Persons preferring adaptive humor styles hardly ever experience negative moods, apprehensiveness or depression [15]. Therefore, parental actions aimed at improving the quality of interpersonal relationships in the sibling subsystem can be equated with prevention of mental disorders in young adults.

Summing up, despite its limitations, the present study has uncovered many interesting aspects of psychological relationships in adult sibling dyads as well as their significant role in psychosocial functioning of an adult and in psychological practice.

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