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Document Version

Publisher's PDF, also known as Version of record

Publication date:

2016

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Jager, M. (2016). *Unraveling the role of client-professional communication in adolescent psychosocial care*. Rijksuniversiteit Groningen.

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Discrepancies between adolescents' attributed relevance and experiences regarding communication are associated with poorer client participation and learning processes in psychosocial care

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2014; 97(3): 332-338

doi:10.1016/j.pec.2014.08.020

ABSTRACT

Objective: To examine adolescents' attributed relevance and experiences regarding communication, and whether discrepancies in these are associated with clients' participation and learning processes in psychosocial care.

Methods: Adolescents receiving psychosocial care ($n = 211$) completed measures of communication in three domains: affective communication, information provision, and shared decision-making. Participation involved clients' attendance and adherence (professional-reported). Learning processes involved clients' improved understanding and improved confidence (client and professional-reported).

Results: Important but less often experienced affective communication was associated with low adherence (odds ratio, 95% confidence interval: 2.8, 1.1–6.8), less improvement in understanding (3.7, 1.5–9.0), and less improvement in confidence (4.5, 1.8–11.6). If information provision or shared decision-making was important but less often experienced, adolescents were more likely to demonstrate less improvement in understanding (3.1, 1.1–8.5; 4.2, 1.7–10.8). The combination “less important but experienced” only had an effect regarding affective communication; these adolescents were more likely to demonstrate less improvement in confidence (6.0, 2.3–15.4).

Conclusion: Discrepancies between attributed relevance and experiences frequently occur. These discrepancies negatively affect adolescents' participation and their learning processes, although the pattern differs across communication domains.

Practice implications: Care professionals should pay considerable attention to their clients' communication preferences and adapt their communication style when necessary.

INTRODUCTION

One out of every four to five adolescents suffers from at least one mental health problem.^{1,2} In the Netherlands about 10% of these adolescents receive psychosocial care for emotional or behavioral problems.^{2,3} However, clients often display poor treatment adherence, and approximately one-third of all adolescents drop out from psychosocial care, undermining the effectiveness of treatment.^{4,5} Care may be more effective if clients participate actively, for instance, by keeping scheduled appointments and adhering to recommendations.⁴ Furthermore, adolescents with emotional and behavioral problems need to learn how to deal with and manage these problems. This is important because youth with lower problem-solving abilities demonstrate higher levels of problem behavior.⁶ In this learning process adolescents can improve on a cognitive level (e.g., understanding of problems and how to handle these), as well as on an emotional level (e.g., self-confidence).

Clients' participation and learning processes may be positively influenced by client-centered communication, in which care professionals adapt their communication to their clients' preferences. The concept of client-centeredness, originally defined as the acknowledgment of every client as a unique person,⁷ is generally considered to be the standard for high-quality care, and an effective way to involve and motivate clients. Stewart⁸ stated that truly client-centered communication means being aware of clients' preferences. This allows the professional to approach the client in the desired way, to provide the desired level of information, and to involve the client in decision-making as much as he or she wishes. Research in various healthcare settings, such as general practice, oncology, and diabetes care, found associations between client-centered communication and beneficial outcomes such as client satisfaction, participation, and health.⁹

However, when it comes to adolescent psychosocial care, little is known about client-centered communication and its association with outcomes. The present study sought to examine the relevance adolescent clients attribute to different aspects of client–professional communication and their experiences with these aspects, and whether discrepancies in these are associated with adolescents' participation and learning processes in psychosocial care. General theories about client–professional communication in healthcare have described various relevant communication functions, such as information exchange, responding to emotions and making decisions.^{10,11} Studies performed in psychosocial care mainly focus on the client–professional relationship and clients' participation in decision-making.¹²⁻¹⁵ To be able to participate in decision-making processes, clients should be provided with sufficient information about their options. Therefore, we chose to assess communication across three domains: (a) affective

communication, (b) information provision, and (c) shared decision-making. We expect that when discrepancies between adolescents' attributed relevance and experiences exist, this will lead to low attendance, low adherence, and less improvement in understanding and confidence (toward oneself and toward the situation one is in).

For psychosocial care professionals this study provides insight into the degree to which relevance-experiences discrepancies regarding communication affect their clients' participation and learning processes. These insights may stimulate them to work on adjustment of their communication to their clients' needs.

METHODS

Study design

This study was conducted within the framework of TAKECARE, a large longitudinal prospective cohort study, designed to investigate the trajectories in and outcomes of care for youth with emotional and behavioral problems. The study captures all new cases entering this care in one Dutch region. We obtained data from different sources (adolescent, parent, professional). This report is based on data from the first (T1; before psychosocial care started) and the second (T2; three months after T1) measurement waves, which respectively ran from April 2011 through June 2013, and from July 2011 through September 2013. Informed consent was obtained from participating adolescents (and their parents if below the age of 16) after the nature of the study had been fully explained. The study was approved by the Medical Ethical Board of the University Medical Center Groningen.

Sample

All adolescents (12–18 years old) who enrolled in an organization for child and adolescent social care or for child and adolescent mental healthcare were invited to participate in this study ($n = 766$). Potential participants were excluded if they were older than 18, had severe mental retardation, were not living in one of the three northern Dutch provinces, did not speak Dutch, did not start treatment after all, or had already received treatment within the organization ($n = 26$). In some cases adolescents could not be contacted because we did not receive the correct telephone number ($n = 50$), or the parent did not grant permission to contact the adolescent ($n = 65$). Of the 625 eligible adolescents, 416 (67%) were reached and agreed to participate in the study.

In the present study we included adolescents who filled in both the questionnaire at the first (T1) and second measurement wave (T2), for whom professional information was available, and who had had at least two appointments with the professional ($n = 211$).

There were several reasons why clients had none or only one contact with the professional: treatment did not start yet ($n = 37$), treatment was aimed at the parent(s) ($n = 27$), clients were referred to another psychosocial care professional or organization ($n = 39$), or treatment just started and there had only been one contact yet ($n = 19$).

Some respondents did not indicate a reason ($n = 12$). Fig. 1 shows the selection of the subsample. The participants included in this sample did not differ significantly from the original sample with respect to socio-demographic characteristics (e.g., family composition, $p = 0.75$) and total mental health problems ($p = 0.75$). However, more girls were included in the subsample ($p = 0.02$), and a higher score was found for the domain emotional symptoms ($p = 0.02$).

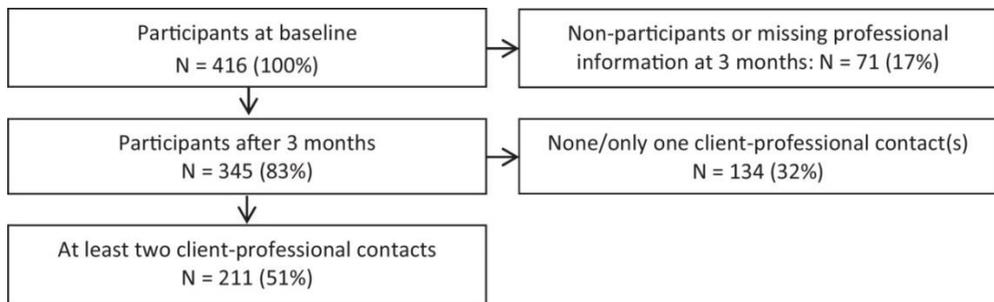


Figure 1. Flowchart sample

Procedures

Upon entry into care, adolescents and their parents received written information about the study. Approximately two weeks later, they were invited to participate. If willing, participants then received a questionnaire, the latter either by e-mail (80%) or on paper (18%), depending on the preference of the participant. If needed, telephone interviews or home visits were arranged (2%).

Measures

Discrepancies between attributed relevance and experiences regarding communication were measured using an adapted version of the Consumer Quality Index (CQI).¹⁶ The CQI assesses both the importance of and experiences with different aspects of care. Items concerning client–professional communication were derived from three existing CQI versions that have been used in preventive child healthcare,¹⁷ outpatient mental healthcare,^{18,19} and outpatient occupational-therapy care.²⁰

To assess communication *relevance*, adolescents rated how important they considered communication across three domains (1 'Not important' – 4 'Very important'). Affective communication consisted of 9 items (Cronbach's α at .89), for example: "In my opinion the care professional should listen to me carefully". Information provision consisted of five items (Cronbach's α at .81), for example: "In my opinion the care professional should provide detailed explanations on the approach of this treatment". Shared decision-making consisted of six items (Cronbach's α at .70), for example: "In my opinion the care professional should always involve me in decisions regarding my treatment".

After three months adolescents rated whether the care professional performed each aspect in their perception, to assess communication *experiences* (1 'No' – 4 'Yes'). If respondents rated an item on the experience scale with code 5 (no experience/don't know) this item was counted as a missing value.¹⁶

Based on the aforementioned questionnaires, *discrepancies between attributed relevance and experiences* were computed. First, relevance scores were dichotomized as either important (highest 75%) or less important (lowest 25%). Second, experience scores were dichotomized in the same way as either experienced (highest 75%) or less often experienced (lowest 25%). Third, attributed relevance and experiences were combined into three categories in which the two types of discrepancy were separated: (1) agreement (less important/less often experienced, or important/experienced), (2) important/less often experienced, and (3) less important/ experienced. These three steps were performed for affective communication, information provision and shared decision-making separately, resulting in three categorical variables that express the degree to which clients' experiences corresponded to their attributed relevance.

Participation was defined as attendance and adherence. We measured *attendance* by asking the professional whether the adolescent had not kept an appointment during the past three months where they had not canceled in advance. Answers were then dichotomized as "yes, once or multiple times" vs. "no, never", indicated as low and high attendance, respectively. We measured *adherence* by asking the care professionals to what extent they agreed with the statement: "The adolescent demonstrated adherence" (0: totally disagree, 10: totally agree). We illustrated this statement with examples: fulfilling agreements, following recommendations, carrying out homework assignments, or taking prescribed medication.

Learning process was defined as improved understanding and improved confidence. We measured *improved understanding* by asking the professional, as well as the adolescent, how much they thought the adolescent had learned due to psychosocial care so far. We illustrated this question with examples: better understanding of the problems, and knowing how to handle difficult situations. Answers were given on a Likert

scale from 0 (absolutely nothing) to 10 (very much). We measured *improved confidence* by asking the professional, as well as the adolescent, whether the feelings of the adolescent had changed positively because of psychosocial care. This question was also illustrated using examples: improved self-confidence, worrying less, and feeling less hopeless. Client and professional ratings of improved understanding were combined by adding up the scores and dividing this new score by two, resulting in a mean score. The same was done to calculate mean scores regarding improved confidence.

The distributions of the outcome variables that were measured on an 11-point Likert scale (adherence, improved understanding, improved confidence) were skewed to the left and could not be transformed to a fully Gaussian distribution. Therefore we dichotomized these as high (75% highest scores) vs. low (25% lowest scores).

Socio-demographic characteristics involved age, gender, family composition, ethnicity, education, parental financial strain, and parental employment. *Family composition* was dichotomized as two-parent family (both biological parents live with the adolescent) vs. other. *Ethnicity* was defined as non-Dutch if the adolescent or at least one of his/her biological parents was born outside of the Netherlands. Because most adolescents did not finish their schooling yet, we assessed their educational level by asking about their current education. *Adolescent education* was then categorized as low (practical training, pre-vocational secondary education, special needs education or lower levels of secondary vocational education), medium/high (senior general secondary education, pre-university secondary education, higher levels of secondary vocational education or higher professional education), or undetermined (still at primary school or unknown). Parental financial strain and employment were based on parent self-report. *Parental financial strain* was dichotomized as “yes, some or major difficulties” and “no difficulties”. *Parental employment* was defined as employed if at least one of the parents had a paid job. *Adolescents’ psychosocial problems* were measured using the Dutch self-report version of the Strengths and Difficulties Questionnaire (SDQ).^{21,22} The SDQ involves 25 items describing positive and negative attributes of adolescents. The items are scored as follows: 0 = not true; 1 = somewhat true; 2 = certainly true, on the basis of the preceding six months. The SDQ consists of five scales of five items each: emotional symptoms, conduct problems, hyper-activity/inattention, peer problems, and prosocial behavior. Scores for the first four scales add up to a total difficulties score (TDS).

Analyses

First, we described the sample’s characteristics and outcomes. Second, we described discrepancies between adolescents’ attributed relevance and experiences regarding communication. Finally, we performed logistic regression analyses to assess whether discrepancies between attributed relevance and experiences influenced adolescents’

attendance, adherence, improved understanding, and improved confidence, leading to odds ratios (ORs) and 95% confidence intervals (95%-CIs). In our analysis, we adjusted for variables that might confound the association between our dependent and independent variables: age, gender, education, parental employment, and total difficulties (TDS). We considered to adjust for intensity of contacts as well, but we decided not to do this because there was a strong correlation between intensity of contacts and TDS ($p = 0.07$). We performed the analysis for the three communication aspects separately.

A p -value below 0.05 was considered statistically significant. Statistical analyses were performed using PASW (Predictive Analytics SoftWare; version 20.0.2). We repeated the analyses using MLwiN (Multilevel Analysis for Windows; version 2.23) to assess whether a clustering of adolescents' outcomes per professional affected our findings.

RESULTS

Participant characteristics

Most of the 211 clients in this sample had received psychosocial care from a mental healthcare organization (76.3%). Problem scores were highest for emotional symptoms and hyperactivity/ inattention. Clients' non-attendance mostly involved some missed appointments (18.6%). For less than 5% of the clients, care professionals reported many missed appointments. Client characteristics and main outcomes are presented in Table 1.

Table 1 Participant characteristics and outcomes (*n* = 211)

Socio-demographic characteristics		M (SD)^a
Age		15.3 (1.7)
		%
Gender	Female	64.9
Family composition	Two-parent family	47.4
Ethnicity	Dutch	89.9
Current education	Primary school	4.7
	Practical training	1.9
	Pre-vocational secondary education	41.7
	Senior general secondary education	15.2
	Pre-university education	11.4
	Secondary vocational education	10.4
	Higher professional education	0.9
	Special needs education	4.3
	Unknown	9.5
Parental financial strain	Yes	33.5
Parental employment	Employed	78.9
Health and care characteristics		M (SD)
Difficulties, type and severity (range: 0-10)	Emotional symptoms score	4.8 (2.8)
	Conduct problems score	2.5 (1.8)
	Hyperactivity/inattention score	5.0 (2.6)
	Peer relationship problems score	2.4 (1.9)
Difficulties, total severity (range: 0-40)	Total difficulties score (TDS)	14.7 (6.0)
Strengths ^b (range: 0-10)	Prosocial behavior score	7.9 (1.9)
		%
Care setting	Child and adolescent mental health care	76.3
	Child and adolescent social care	23.7
Intensity of contacts	Low: 2-3 contacts	35.7
	Moderate: 4-8 contacts	32.1
	High: 9 or more contacts	32.1
Outcomes		%
Participation (attendance)	No missed appointments	76.8
	Some missed appointments	18.6
	Many missed appointments	4.6
		M (SD)
Participation (adherence) (range: 0-10)	Adherence (lowest 25%: ≤6.0)	7.4 (1.8)
Learning process (range: 0-10)	Improved understanding (lowest 25%: ≤5.5)	6.4 (1.7)
	Improved confidence (lowest 25%: ≤4.5)	5.9 (1.8)

^a M = Mean; SD = Standard Deviation.^b For "strengths" higher scores indicate less problems in this area.

Discrepancies between communication relevance and experiences

Table 2 shows discrepancies between adolescents' relevance and experience ratings of affective communication, information provision, and shared decision-making. For affective communication, agreement between attributed relevance and experiences was lowest (59.5%). For information provision and shared decision-making, approximately two-third of adolescents' attributed relevance and experiences corresponded. Regarding the direction of discrepancies, frequencies were rather similar for communication that was important but less often experienced, and for communication that was less important but experienced.

Table 2 Discrepancies between adolescents' attributed relevance and experiences regarding communication

Attributed relevance and experiences	Affective communication	Information provision	Shared decision-making
	<i>N</i> (%)	<i>N</i> (%)	<i>N</i> (%)
Agreement	119 (59.5)	130 (69.1)	134 (68.0)
Important/less experienced	43 (21.5)	29 (15.4)	32 (16.2)
Less important/experienced	38 (19.0)	29 (15.4)	31 (15.7)

Associations between communication and outcomes of care

Results regarding the association between discrepancies in communication and outcomes are presented in Table 3. Adolescents who attached importance to affective communication, but less often experienced this were more likely to demonstrate a lack of adherence (odds ratio, 95% confidence interval: 2.8, 1.1–6.8), of improved understanding (3.7, 1.5–9.0), and of improved confidence (4.5, 1.8–11.6). For adolescents who perceived affective communication as less important but experienced, this association was only found regarding (lack of) improved confidence (6.0, 2.3–15.4). Important but less often experienced information provision was associated with less improved understanding (3.1, 1.1–8.5). Although not statistically significant ($p = 0.08$; $p = 0.11$), for both types of discrepancies results also indicate an association with less improved confidence (2.7, 0.9–8.0; and 2.3, 0.8–6.3, respectively). Important but less often experienced shared decision-making was only associated with less improved understanding (4.2, 1.7–10.8). The combination “less important, but experienced discrepancies” did not have an effect for information provision, and neither for shared decision-making. No associations were found between relevance-experience discrepancies and attendance. Multilevel analysis resulted in the same findings (data not shown).

Table 3 Association of discrepancies in adolescent-reported communication preferences and experiences, and outcomes: results of logistic regression analyses (odds ratios, OR; 95% confidence intervals, CI)

Communication relevance vs. experiences (client-reported) Type of discrepancy (reference category = agreement)	Participation (professional-reported)			Learning process (client- and professional-reported)		
	Low attendance (vs. high)	Low adherence (vs. high)	Low improved understanding (vs. high)	Low improved understanding (vs. high)	Low improved confidence (vs. high)	Adjusted# OR (95% CI)
Affective communication						
Important/less experienced	1.9 (0.8-4.2)	2.8 (1.3-6.4)*	2.8 (1.1-6.8)*	4.6 (2.1-10.3)***	4.9 (2.1-11.2)***	4.5 (1.8-11.6)**
Less important/experienced	1.4 (0.6-3.5)	2.3 (0.9-5.5)	1.8 (0.7-4.7)	2.4 (1.0-5.8)	2.3 (0.9-5.9)	6.0 (2.3-15.4)***
Information provision						
Important/less experienced	0.4 (0.1-1.4)	0.6 (0.2-1.9)	0.9 (0.3-2.9)	2.7 (1.1-6.5)*	3.1 (1.1-8.5)*	2.7 (0.9-8.0)
Less important/experienced	0.6 (0.2-1.8)	0.8 (0.3-2.2)	1.0 (0.3-2.9)	1.2 (0.4-3.3)	1.5 (0.5-4.5)	2.3 (0.8-6.3)
Shared decision-making						
Important/less experienced	2.0 (0.8-4.7)	2.3 (1.0-5.5)	2.1 (0.8-5.5)	4.5 (2.0-10.3)***	4.2 (1.7-10.8)**	1.7 (0.6-4.4)
Less important/experienced	1.1 (0.4-2.9)	1.1 (0.4-3.0)	1.0 (0.4-2.9)	0.7 (0.2-2.1)	0.7 (0.2-2.3)	0.8 (0.3-2.3)

#The analysis was adjusted for age, gender, adolescent education, parental employment, and total difficulties.

* p < 0.05, ** p < 0.01, *** p < 0.001.

DISCUSSION AND CONCLUSION

Discussion

This study is the first in which the impact of adolescents' attributed relevance and experiences regarding communication in psychosocial care has been assessed. Previous studies have been done in medical fields, such as general practice, diabetes care, and oncology. Studies in mental healthcare have always involved adult clients. We found that, in psychosocial care, discrepancies between communication relevance and experiences were associated with adolescents' participation and learning processes, although the pattern differed across communication domains.

The effect of discrepancies between adolescents' attributed relevance and experiences regarding communication on outcomes varied, depending on the type of relevance-experience discrepancies. Important but less often experienced affective communication, information provision, and shared decision-making were associated with low adherence, less improved understanding, and/ or less improved confidence, while less important but experienced discrepancies only had an effect when it came to affective communication. We are not aware of other studies that have already explicitly described the impact of these two discrepancy types, although both types may lead to less optimal care, especially with regard to affective communication. Discrepancies may be due to care professionals' suboptimal adjustment of their communication to their client's preferences. That may in turn be due to the professional not being aware of the client's preferences, and thus not adapting his or her communication style accordingly. Another explanation for discrepancies may be that care professionals are not always able to adapt to clients' preferences, because these are less realistic in relation to what the professional can offer in the given care or treatment setting.

Discrepancies between adolescents' attributed relevance and experiences regarding affective communication have the strongest effect on clients' participation and learning processes. This stresses the importance placed on this aspect by clients in psychosocial care,²³ which also holds true for other care settings.^{24,25} Our study provides empirical evidence for the assumption that fostering a relationship is important in order to accomplish a productive care process in psychosocial care for children and adolescents.^{14,26-28} Clients with psychosocial problems, especially severe ones, often are less motivated for treatment,²⁹ and they may therefore be less inclined to adhere to treatment recommendations or to engage in learning processes. A good interpersonal relationship may strongly increase clients' motivation, participation, and improve learning processes.

Interestingly, adolescents also showed less improvement in confidence when affective communication was rated as less important but experienced anyway. One reason

may be that affective communication concerns interpersonal contact, disclosure, and talking about one's feelings. This may be very difficult for some adolescents with emotional or behavioral problems, and therefore less desired.²⁶ That may also explain why we did not find this effect for the domains of information provision and shared decision-making.

Discrepancies regarding information provision were negatively associated with adolescents' learning processes, although not always with statistical significance. This might be due to the generic formulation of the items in this domain, with information needs being more specific. Our findings align with those on preference-behavior matches in patient-physician interaction, as reviewed by Kiesler and Auerbach.³⁰ Their review concluded that patients' desires for information provision were often not met, and that this negatively affected outcomes (e.g., depression, anxiety, satisfaction). Accurate and sufficient information may be important in promoting adolescents' learning processes in psychosocial care, because this helps to create knowledge and awareness that is needed in order to deal with and manage problems.

Discrepancies regarding shared decision-making were also associated with poorer adolescent learning processes, but only for those adolescents who attached importance to shared decision-making but less often experienced this. These clients were less likely to have an improved understanding of their problems. This concurs with studies conducted in adult mental healthcare, in which positive associations between shared decision-making and outcomes such as attendance, knowledge, and satisfaction were found as well.^{31,32} Furthermore a study into the effectiveness of the child and youth services system in Germany indicated that residential and foster care are more successful if the young people involved can participate in the decision-making processes.²⁸

Interestingly, the other type of discrepancy, less important but nevertheless experienced shared decision-making, did promote clients' learning processes. This may be interpreted in terms of shared decision-making having a positive effect on outcomes, regardless of clients' pre-treatment attributed relevance. That is to say, adolescents who feel they are not sufficiently involved in decisions regarding their own care in any way, may not feel committed to the decisions made. However, there is still a considerable group of clients who prefer a more passive role, with the care professional making the decisions.^{33,34}

Adolescents' attendance was the only outcome that was not sensitive to any discrepancy between communication relevance and experiences. This may be interpreted in terms of client-professional communication not influencing whether adolescents appear at scheduled appointments or not, in the early stages of psychosocial care. However, just their physical presence at appointments does not mean that they are

actively participating in their care process. Furthermore, communication may influence attendance in the long term, resulting in premature dropout.

Strengths and limitations

Our study has considerable strengths. We examined clients' pre-treatment perceptions of the relevance of communication, and their experiences after three months in order to assess the degree of client-centered communication. This approach aligns with Stewart⁸ who suggested that truly client-centered communication should be about recognizing the individual client's preferences and adapting communication accordingly. Furthermore we considered both types of discrepancy. To limit information bias, we used client-reported measurements, as well as professional-reported measurements, in order to assess outcomes of care.

The present study does have some limitations. First, communication experiences were measured through client self-report, and this might have led to some information bias. Second, the answers of professionals concerning their clients' learning processes may be subject to social desirability, because these concern the effects of their own treatment. However, by including the client perspective as well, we reduced possible information bias. By averaging client and professional scores, major differences between clients' and professionals' perspectives were lost, however. Instances of major discrepancy were very rare, though. Third, we do not know exactly what type and intensity of care was provided in the preceding three months. Depending on the type and intensity of the care process, providing information or making decisions might be more relevant or less relevant. This may have led to an underestimation of our findings regarding these two communication domains. One final limitation involves the way in which we measured communication. Importance scores and frequencies of experiences only reflect the level of affective communication, information provision, and shared decision-making. This does not, for example, assess whether clients prefer an active, passive, or collaborative role in decision-making.

Conclusion

In psychosocial care, discrepancies between adolescents' attributed relevance and experiences regarding communication are negatively associated with client participation and learning processes. Important but less often experienced affective communication, information provision, and shared decision-making were associated with low adherence, less improved understanding, and/ or less improved confidence. Less important but experienced discrepancies only had an effect for affective communication. Overall, discrepancies in communication relevance and experiences in this domain had the strongest effect on clients' participation and learning processes.

Practice implications

This study underlines how important it is that care professionals in psychosocial care pay considerable attention to their clients' preferences and experiences during the care process so as to optimize communication. Client-centered communication may provide the means to achieve this and may lead to better agreement between care professional and client, which in turn leads to a reduction in discrepancies. If at some point discrepancies between client's attributed relevance and experiences do exist, care professionals could discuss these with their client and adjust their communication style if necessary. Because clients' needs may change during the care process, ongoing reflection on their perceptions of the communication is recommended. To prevent discrepancies as much as possible, professionals could already start talking about their clients' preferences at the start of the treatment. A questionnaire like the one used in this study might help them to do so, but the usefulness of this questionnaire in practice should be tested first.

Additional research is needed to develop guidelines and training programs aimed to improve client–professional communication in psychosocial care. First, this research should be aimed at expanding the evidence base regarding the role of client–professional communication in psychosocial care for children and adolescents. Long-term outcomes for subsequent care, such as client satisfaction, premature dropout, and reduction of problems, should be taken into account. Moreover, it seems likely that clients' participation and learning processes might mediate the association between communication and the effectiveness of psychosocial care. Assessment of these pathways may generate better insight into the role of communication in psychosocial care. Future studies may also take into account possible disagreement between clients' and professionals' perspectives on communication as well as outcomes. Second, researchers and practitioners should work together to develop and evaluate questionnaires, guidelines and training programs that provide care professionals with practical tools to improve communication with their clients. This may further contribute to better care for this vulnerable group of clients.

Acknowledgements

This study has received grants from the Netherlands Organization for Health Research and Development (ZonMw) is 15900.0001, the Province of Groningen, the University Medical Center Groningen, the University of Groningen, health insurance company Menzis, and child and youth care providers Accare and Elker.

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