

The effect of an ODD label on therapists' autonomy-supportive responses to adolescents showing treatment resistance.

Master thesis

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This thesis aimed to study the effect of the DSM label opposition defiant disorder (ODD) on therapists' autonomy-supportive responses to adolescents who show resistance within treatment. The autonomy-supportive responses were measured through video-vignettes consisting of a session between a therapist and a client (adolescent actor) who shows resistance. The actor was given a DSM label, which was communicated to the therapist via an instruction text prior to the vignette. Therapists were asked to verbally respond to the scenario in a natural way and these responses were coded for autonomy-support. It was expected that therapists would react with lower autonomy-supportive responses to adolescents with ODD than to adolescents with a social anxiety disorder (SAD) showing treatment resistance. The results however showed that therapists do not give a lower autonomy-supportive response to adolescents with ODD than to adolescents with SAD. Although more research about the causes of differences in therapists' autonomy-supportive responses is important, these findings suggest that solely a DSM label may not influence therapists' autonomy-supportive responses to treatment resistance.



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Introduction

Adolescent treatments often do not have a positive outcome (Weisz and Kazdin, 2010). Several studies have found that treatment resistance is a predictor of these poor treatment outcomes (Beutler, Rocco, Moleiro, & Talebi, 2001; Westra, Aviram, Connors, Kertes, & Ahmed, 2012). Yeager and Dweck (2018) explain that adolescents show greater treatment resistance than younger children or adults. Especially adolescents with aggressive behavioural problems show treatment resistance and it proves to be one of the most difficult tasks to getting an aggressive adolescent to want to work in therapy (Hanna & Hunt, 1999). Resistance occurs when individuals feels like they do not have the liberty to make independent choices such as deciding about the content of treatment or if at all they want to participate (Beutler, Harwood, Michelson, Song & Holman, 2011). Resistance often manifests as a result of adolescents receiving homework like practicing a relaxation exercise when they are feeling angry (Westra & Norouzian, 2018). Homework is an important factor within treatments, because it allows the adolescent to practice their skills to move forward to achieve their goals. Resistance can be explained as a product of two interacting forces, namely the client's ambivalence toward changing their behaviour and the therapist' response to this ambivalence (Westra & Norouzian, 2018). The therapist' response to resistance therefore plays an important role in the perseverance of resistance (Beutler, Edwards and Someah, 2018). For this reason, further exploration of therapists' responses to adolescents with an oppositional defiant disorder (ODD) who show treatment resistance is important.

Research suggests that autonomy-supportive responses to treatment resistance are effective for preventing the perseverance of resistance. Yeager and Dweck (2018) explain that adolescents need to have a sense of autonomy to ensure cooperation instead of resistance. Autonomy refers to volition, namely the humans' desire to decide independently about their behaviour and experiences (Deci & Ryan, 2009). This can be achieved through therapists offering choice, rationale and empathy to adolescents showing treatment resistance (Savard, Joussement, Pelletier and Mageau, 2013). Adolescents that have a sense of autonomy show more willingness to change and therefore show less resistance (Yeager & Dweck, 2018). This could indicate that when the autonomy of adolescents within treatment is respected, treatment outcomes could improve. Deci and Ryan (2000) support this notion: according to them, adolescents who are left in charge of their actions have a feeling of autonomy, which makes them show less resistance. On the contrary, low autonomy-supportive responses can be seen

as therapists using suggestions, interpretations and assignments to guide the clients' progress through treatment (Beutler et al., 2018). This is seen as a directive approach (Westra & Norouzian, 2018). When therapists respond with a low autonomy-supportive approach to treatment resistance the likely outcome is that resistance will be reinforced and problem behaviour may persist (Westra & Norouzian, 2018). Beutler, Edwards and Someah (2018) support this notion: they conclude that individuals had better treatment outcomes when therapists assumed a high autonomy-supportive stance rather than a low autonomy-supportive one. Resistance however, might just provoke low autonomy-supportive responses. Westra and Norouzian (2018) stated that therapists react with more commands and discipline towards adolescents who show resistance within treatment compared to those who do not show resistance within treatment. This is an important finding, because it shows that the response to an adolescent showing treatment resistance is mostly low autonomy-supportive, whereas a high autonomy-supportive response is necessary for good treatment outcomes (Westra & Norouzian, 2018).

What may influence therapists' autonomy-supportive responding to adolescents showing treatment resistance? Therapists could react with a low autonomy-supportive response to adolescents diagnosed with ODD showing treatment resistance as a result of the ODD label (Shachner & Farber, 1997). This might be due to the way they perceive the behaviour. Resistance of adolescents with aggressive behaviour could be viewed as unwillingness, whereas resistance of adolescents showing other problems such as anxious behaviour could be viewed as powerlessness. Children with aggressive behavioural problems therefore might get a less autonomy-supportive approach to their resistance, which stands in the way of a positive treatment outcome. For this reason, the research question within this thesis is: *'Do therapists respond less autonomy-supportive to adolescents with ODD than to adolescents with other behavioural problems when showing treatment resistance?'* The hypothesis is that therapists will indeed respond less autonomy-supportive to adolescents with ODD than to adolescents with SAD.

Several studies provide indirect support for this hypothesis. Brunck and Henggeler (1984) studied the reaction of mothers to 10-year old children showing different behavioural problems. They disclosed that mothers tend to respond with more verbal help and rewards towards children showing anxious and withdrawn behaviour than to children showing conduct problems to whom they reacted with higher rates of ignoring, commands and discipline (Brunck & Henggeler, 1984). This study however, did not investigate therapists' responses to

adolescents. Shachner and Farber (1997) studied countertransference (i.e. the unconscious reactions to clients) of therapists to children with a dysthymia, conduct and borderline disorder. Therapists received written vignettes about 8-year old children showing behaviour according to one of the above-mentioned DSM label. The DSM label was manipulated by means of illustrations and text and therapists were asked to give a written response to the children. It was concluded that therapists reacted with more negative countertransference to children with a conduct disorder than to children with a dysthymia disorder (Shachner & Farber, 1997). This study gives an indication that therapists will respond with a less autonomy-supportive approach to adolescents with ODD. However, from this study, it is not clear whether the therapists' response derives from the portrayed behaviour of the child or solely from the DSM label. If therapists indeed react with low autonomy-supportive responses to adolescents based on merely a DSM label, this might result in lesser effectiveness of treatment for youth with externalizing behavioural problems such as ODD (Shachner and Farber, 1997). Therefore, this thesis aims to study the influence of an ODD label on therapists' autonomy-supportive responses to adolescents who show treatment resistance by manipulating only the DSM label of the adolescents. Schachner and Farber (1997) used written vignettes, which are hard to generalize to daily practice. This study will use video-vignettes with scenarios more realistic for therapists to ensure they will respond like they would normally do in a real session with a client.

A second research question within this study was whether the effect of an ODD label on therapists' autonomy-supportive responses to resistance would be stronger for those therapists with less professional experience. According to Brody and Farber (1996), therapists' emotional reactions toward their clients vary significantly as a result of professional experience. Haccoun and Lavigne (1979) support this finding and conclude that therapists' experience and emotions interacted in such a way that more experienced therapists showed greater tolerance of anger. This could indicate that therapists with less professional experience react with lower autonomy-supportive responses to adolescents with an ODD label than therapists with more professional experience. The hypothesis is that the effect of an ODD label on therapists' autonomy-supported responses to adolescent treatment resistance will be stronger for those therapists with less professional experience.

The current study had a quantitative within-subjects design. Therapists' responses were assessed through two video-vignettes. These vignettes showed a scenario of a therapist and a client (the adolescent) in a treatment session. The DSM label of the adolescent was

manipulated by means of a text prior to watching the vignette; introducing the adolescent and their DSM label. In the vignette, the client shows resistance through certain reactions to which the therapist needs to respond verbally. This response will be recorded on audio so that it can be coded via a coding scheme based on a coding system of Moyers, Manuel and Ernst (2014). It is expected that therapists will react with a lower autonomy-supportive response to the adolescent with an ODD label than to the adolescent with other behavioural problems. Lastly, it is expected that the effect of an ODD label on the therapists' responses will be greater for those therapists with less professional experience.

Methods

Participants

Adolescents of a drama class were approached for creating the video-vignettes. Four adolescents, two boys and two girls (*Age* = 13.68 *SD* = .72), participated. Prior to shooting the videos, the adolescents and their parents signed an informed consent. As a reward for participating, the adolescents each received fifteen euros.

Participants were recruited through personal connections and via linked-in. To be included in the study, participants had to have a master's degree as a psychologist or remedial educationalist and working experience with children/adolescents. In total 48 participants aged 23 to 64 were recruited (*Age* = 35.62, *SD* = 10.43; 91.7% female; 97.9% Dutch). The participants were basic psychologists (43.8%), specialized (GZ) psychologist (33.3%), remedial educationalists (10.4%) and otherwise academically schooled psychologists (most of whom are training to become specialized psychologists; 12.5%). A G-power analysis was conducted to determine how many participants were needed within this study. Shachner and Farber (1997) found a negative countertransferential response of therapists to children with a conduct disorder; medium-large effectsize ($d = .78$). However, the construct autonomy-support within this study differs from the countertransferential construct. For this reason, a lower effectsize (0.5) was used to ensure an effect could be found. It appeared 38 participants were required for a power of 0.80 to detect a medium effect ($d = 0.5$) for two groups in a within subjects design. Participants signed an informed consent form prior to starting the experiment.

Materials

To measure therapists' responses to resistance, two video-vignettes were created. Both vignettes consisted of a scenario of a therapist and client in their third session. The clients were adolescent actors, one boy and one girl of approximately 14 years old and of Dutch origin. The clients in the vignettes showed a slightly passive attitude and expressed that they did not do the assigned homework. Literature shows that this is a common display of resistance (Westra & Norouzian, 2018). In the first vignette the client explains that he/she does not need the homework as everything went fine this week. In the second vignette the client explains that she was too busy with school tests to do the homework. The video paused after the portrayed resistance and the participant was asked to verbally respond to the client in a natural way (i.e. like they would when they were the therapists). The verbal responses were recorded with an audio-recording device and coded by two graduate students. A coding scheme (see appendix two) was developed based on the coding system Motivational Interviewing Treatment Integrity (MITI) of Moyers, Manuel and Ernst (2014). The responses were coded on a 7-point Likert scale, ranging from 1 (*not autonomy-supportive*) to 7 (*extremely autonomy-supportive*). Autonomy-supportive responses were defined as responses that gave the adolescents complete choice about whether they wanted to do the homework; their opinion regarding the homework was important (e.g. 'hmm, I can see you do not really want to do the homework, is that correct?'). When the participant made clear that the adolescent needed to do the homework as told, a response was seen as not autonomy-supportive (e.g. 'we agreed you would do the homework so I expect you to practice with the exercise'). When the response did not swing toward autonomy-supportive or not autonomy-supportive, a score of 4 (*neutral*) was given. To make sure the experimenters coded the responses the same they used approximately 20% of the responses for training with the coding scheme. Both experimenters coded all remaining responses and the experimenters proved to be reliable, $R = .76$. An independent experimenter decided on the coding differences that existed between the two experimenters (see appendix three). A final variable was created with one score for autonomy-support for each participant per condition.

The ODD label (independent variable) was manipulated by means of an instruction text prior to the vignettes. This instruction was similar for both vignettes except for the DSM label of the adolescent. The adolescents in the control group received the label social anxiety disorder (SAD). SAD was chosen as a control label, because this reflects internalizing behaviour, which makes a good comparison with ODD (externalizing behaviour). The

participant would either learn that the adolescent was diagnosed with ODD or with SAD. Participants did both conditions in which the DSM label was counterbalanced, but the order of the vignettes stayed the same. They either received the condition in which the first vignette contained the ODD label or the second condition in which the first vignette contained the SAD label. Through counterbalancing the conditions, we controlled for a learning effect as participants might learn what response could have been better or more suitable from the first vignette. Furthermore we controlled for possible differences concerning the content of the displayed resistance and for a bias regarding a boy or girl with a certain DSM label.

The number of years of experience of the participants was measured through a questionnaire. Participants were requested to fill out the years of experience they had as therapists working with adolescents¹.

Several control measures were conducted after the experiment. Firstly, to measure if participants responded to the video-vignettes as they would during a real therapy session, participants were asked to give a score on a 7-point Likert scale ranging from 1 (*completely disagree*) to 7 (*completely agree*)². Secondly, to measure how the participants viewed the degree of resistance of both vignettes, they were asked to rate this on a line ranging from 0 centimetre's (*no resistance at all*) to 10 centimetres (*extreme resistance*) by placing a cross on this line. After measuring this line with a ruler, it appeared to be ranging from 0 to 9.8 centimetres³. The scores were entered in the dataset as millimetres (2 centimetres equals 20 millimetres). Thirdly, to measure how participants viewed the degree of realism of both vignettes, they were asked to rate this on a similar line as was used with the resistance question. Lastly, to ensure the manipulation was successful, the participants were asked which DSM label the adolescents in the vignettes were diagnosed with after the experiment. They received a score of 1 if they remembered both labels correctly (a score of 0 otherwise) and only then the manipulation was seen as successful.

¹ They were also asked to fill out their years of experience working in general and with working with adolescents with ODD. The experimenters viewed the years of experience working with adolescents as significant, which was chosen as a variable.

² They were also asked if they could empathize with the situation and identify with the therapist. The question about the natural response was seen as the most important as this was the dependent variable within this study. Therefore, the other two questions were not included as control measures.

³ All experimenters measured the response from the left of the line to the right of the line to ensure a reliable outcome.

Procedure

The data-collection was conducted by three graduate students, which often took place at the participants' working place or at their homes. The whole experiment took about 20-30 minutes. After a short introduction the participants were given an information letter regarding the study. Afterwards they were asked to sign an informed consent form. Following, the participants seated behind the experimenters' laptop and were asked to read the instructions. The instructions informed the participants that they would practice with a video-vignette before starting the experiment. This vignette was specifically created for means of practicing and did not contain any resistance. Practicing would allow the participants to learn what they could expect and get comfortable with answering out loud. After reading the instructions the experimenters asked if the participants understood the instructions and an additional brief verbal repetition of the instructions was given⁴. The therapist then did the practice assignment. After the practice assignment the experimenter asked the participant to do both vignettes for which the experimenter would leave the room. It was mentioned that the participant could call the experimenter back when he or she was finished. The experimenter left the audio recorder on the desk to record the therapists' responses and left the room. After the experimenter was asked back, the participant was given a questionnaire about their demographic information and the control questions to fill out whilst the experimenter waited outside again. Afterwards, the experimenter debriefed the participant. Last, participants were asked if they had any questions and were thanked for their participation.

Data-analysis

To test if therapists gave a less autonomy-supportive response to adolescents with an ODD label than to adolescents with a SAD label showing treatment resistance, a dependent *t*-test was executed. The independent variable was the condition, namely the DSM label (ODD or SAD) of the adolescent. The dependent variable was the autonomy-supportive response of the therapists and was continuous. Secondly, to test if the effect of the ODD label on therapists' autonomy-supportive responses was stronger for therapists with less professional experience than for therapists with more professional experience a moderation-analysis was conducted using a mixed-ANOVA. The independent variable was the condition, namely the DSM label (ODD or SAD) of the adolescent. The dependent variable was the autonomy-supportive

⁴ It was emphasized by the experimenters that it is important to empathize with the client, respond as natural as possible when speaking out loud and to remember that they already know the client, as it is the third session.

response of the therapists. The moderating variable was the therapists' years of experience with working with adolescents.

Results

Data-inspection

Before running the analyses, a data inspection was conducted to determine whether data of all participants would be included. Firstly, data of participants who did not remember both of the DSM labels of the two vignettes correctly after the experiment was excluded ($n = 5$). Secondly, if participants indicated (a score of 1, 2 or 3) that they did not respond like they would do in a real life session their data was excluded ($n = 6$). Thirdly, data of participants was excluded if both⁵ of the experimenters knew the condition of this participant while coding their response ($n = 3$). Lastly, data of two participants was excluded based on the experimenters' notes that these participants did not understand the instruction correctly ($n = 2$). After completing the experiment, participants were asked what they thought the experiment was about. The main analysis was run with and without data of participants who guessed the goal of the experiment. The results were not affected by the inclusion of this data and therefore these data were not excluded ($n = 4$).

Participants

After excluding data of 16 participants, data of 32 participants remained ($Mage = 36.13$, $SD = 10.84$; 93.8% female; 96.6% Dutch). The descriptive statistics of the study variables for this sample are displayed in Table 1.

⁵ Data of the participants of whom only one experimenter knew the condition was not excluded. The coding done by the independent experimenter (if at all a difference existed between the first two experimenters) would compensate for this lack of blindness of the condition.

Table 1

Means (M), Standard Deviations (SD) and Range (Min, Max) of Variables of this Study

Variables	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Age participants	36.13	10.84	23.27	64.92
Score autonomy-supportive response				
<i>ODD condition</i>	4.75	2.20	1.00	7.00
<i>SAD condition</i>	4.33	1.95	1.00	7.00
Therapist engagement	5.13	1.31	2.00	7.00
Level of resistance				
<i>First vignette</i>	57.11	19.48	15.00	90.50
<i>Second vignette</i>	60.12	16.39	28.00	96.00
Realism of scenarios				
<i>First vignette</i>	75.97	18.00	12.50	98.00
<i>Second vignette</i>	77.25	15.18	32.50	97.00

Assumption check

It appeared that the therapists' autonomy-supportive responses were roughly normally distributed. Based on the Komogorov-Smirnov test it was clear that both the data of the autonomy-supportive responses to the ODD label ($p = .200$) as to the SAD label ($p = .064$) were normally distributed. No significant outliers (Z -score > 3) were found on both variables. In sum, the assumptions of a normal distribution of the dependent variable and the absence of significant outliers have been met.

Standardization check

For this study it was crucial that the perceived resistance and realism of both video-vignettes was equal. To determine whether there was a difference between the participants' perceived resistance of the first and second vignette, a paired samples t -test was conducted (see Table 1 for additional data on these variables). It appeared that no significant difference existed, $t(27) = -1.005$, $p = .324$. Furthermore, to determine whether there was a difference between the participants' perceived realism of the first and second vignette, a paired samples t -test was conducted (see Table 1). It appeared that no significant difference existed, $t(27) = -.611$, $p = .546$. Concluding, the standardization of the resistance was successful.

Main analyses

To test if therapists gave a less autonomy-supportive response to adolescents with an ODD label than to adolescents with a SAD label showing resistance within treatment, a paired samples *t*-test was conducted. The results showed that therapists did not give a less autonomy-supportive response to an adolescent with ODD than to an adolescent with SAD, $t(31) = 1.087$, $p = .286$, $d = .20$ (see Table 1). For this reason, the hypothesis that therapists will react with lower autonomy-supportive responses to adolescents with ODD than to adolescents with SAD was rejected. A visual representation of the mean scores of therapists' autonomy-supportive responses per condition can be found in Figure 1.

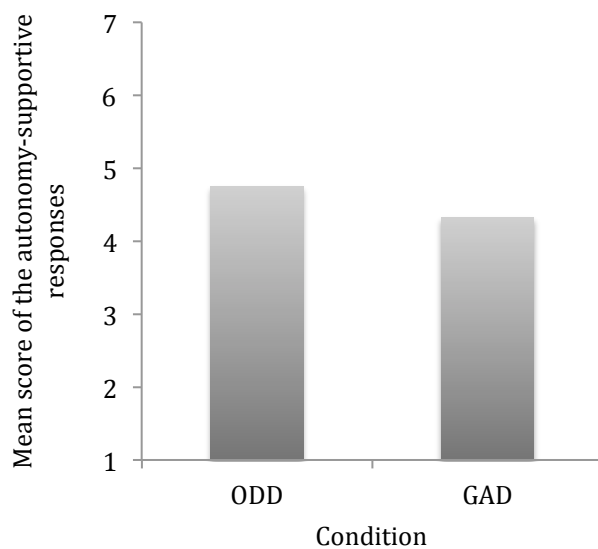


Figure 1. Mean scores of therapists' autonomy-supportive responses to adolescents with an ODD or SAD label showing treatment resistance.

To test if the effect of an ODD label on therapists' autonomy-supportive response was greater for therapists with less professional experience than for therapists with more experience, a mixed ANOVA was conducted. The results showed that less professional experience of therapists does not influence therapists' autonomy-supportive responses, $F(1, 28) = .370$, $p = .548$ (see Table 1). For this reason, the hypothesis that therapists with less professional experience would give a less autonomy-supportive response to adolescents with ODD than to adolescents with SAD was rejected.

Discussion

This thesis aimed to study the effect of an ODD label on therapists' autonomy-supportive responses to adolescent treatment resistance. The results showed that therapists did not give a less autonomy-supportive response to adolescents with ODD showing resistance within treatment than to adolescents with SAD, which served as the control condition. Furthermore, the effect was not stronger for those therapists with less professional experience. Both hypotheses within this study were rejected.

This study took an extra step in the research on adolescents showing resistance within treatment and therapists' autonomy-supportive responses to treatment resistance. Previous research showed that therapists react with more commands and discipline and thus less autonomy-supportive responses toward youth who show treatment resistance compared to youth who do not show treatment resistance (Westra & Norouzian, 2018). Furthermore it appeared that when children show aggressive behaviour, mothers were more likely to react with a less autonomy-supportive response than to children showing anxious/withdrawn behaviour (Brunk & Henggeler, 1984). Lastly, it was found that therapists reacted with more negative countertransference (i.e. unconscious reactions to clients) to children with a conduct disorder than to children with a dysthymia disorder (Shachner & Farber, 1997). These studies indirectly suggested that a DSM label might influence therapists' autonomy-supportive responses. However, it was not clear from these studies whether the effect of an ODD label resulted from solely the DSM label or from the behaviour the child portrays as a result of that label. This study therefore researched the effect of solely an ODD label while keeping the behaviour of the adolescent constant. The findings suggested that the differences in therapists' autonomy-supportive responses to adolescents showing treatment resistance do not derive from being influenced beforehand by solely a DSM label.

Although the results indicate that a DSM label does not affect therapists' autonomy-supportive responses, this cannot be concluded as other explanations for not finding an effect could exist. A possible explanation is the methodological approach of this study. The adolescent resistance was incorporated in a very short fragment, which might have made it difficult for the participants to view the resistance as high. This is confirmed by the mean scores of the participants' perceived resistance of both vignettes, which are in the middle of no perceived resistance and a lot of perceived resistance (see Table 1). If participants experienced adolescent treatment resistance in a longer fragment or in multiple fragments the

resistance then might be perceived as high. This means an effect of an ODD label on therapists' autonomy-supportive responses could exist, but not within this specific design of the study. In future research multiple and possibly longer fragments could be used to ensure the resistance is perceived as high to study whether the effect of solely an ODD label does exist.

Although the hypothesis was rejected, an important result of this study is that large differences in therapists' autonomy-supportive responses were found. The responses ranged from extremely autonomy-supportive to not autonomy-supportive at all. An example of a high autonomy-supportive response (score 7) is: 'How do you feel about being here today, because I see it is quite difficult for you to talk about this'. An example of a low autonomy-supportive response (score 1) is: 'Well, I think you should do it, because we agreed upon this and it can help us see what goes well and what we need to work on'. Based on the large differences found in therapists' autonomy-supportive responses it can be concluded that there was something causing therapists to respond with high or low autonomy-supportive. This could not be based on the behaviour of the adolescent, as this was held stable within the current study. It could be possible that personal factors, such as specialized education of the therapist contribute to reacting with autonomy-supportive responses. For instance, an important specialized education regarding autonomy-support is Motivational Interviewing (MI). MI is an approach that recognizes that clients can show resistance and states that instead of fighting the resistance therapists should endure this and find a way to motivate the client to neutrally change through enhancing their own motivation (Ryan, Lynch, Vansteenkiste & Deci, 2011). MI therefore aligns with an autonomy-supportive approach and an education in MI could possibly lead to therapists giving high autonomy-supportive responses to adolescents showing treatment resistance. Future research could study the differences between a group of therapists who are trained in MI and a group of therapists who are not trained in MI when looking at therapists' autonomy-supportive responses to adolescents showing treatment resistance.

The current study had several strengths and limitations. A strength of this study involved the internal validity. By successfully keeping the level of resistance of both video-vignettes stable we were able to measure the effect of solely an ODD label and not portrayed behaviour by the client. Furthermore, this study aimed to measure therapists' autonomy-supportive responses and this was done successfully (large differences in responses was found). As a result, it could be concluded that there was something causing therapists to

respond autonomy-supportive or not autonomy-supportive, which provides an opening for future research.

One limitation of this study is that there was no full external validity, as it was possible that the therapists' response to adolescent resistance within treatment in real life sessions did not match the response given within this experiment. The content and design of the video-vignettes were based on literature and help from several therapists. A clear picture was shaped about the manifestation of resistance within treatment of adolescents, which was incorporated in the vignettes. However, this might not be enough to ensure the same reaction of therapists that they would give in a real session. This was controlled by asking the participant if they felt they responded in a way they would normally do. Data of participants who felt they did not respond like they would do in a real session was excluded and therefore the results could carefully be interpreted as if therapists did respond like they would in a real session. A second limitation is that the therapists might have answered social desirably as they knew their response was being recorded. For this reason it might be possible that the effect of an ODD label on therapists' autonomy-supportive responses was not found within this study, whereas it does exist. On the other hand, the participants did not know the goal of the study prior to viewing the vignettes, which made it unlikely they answered social desirably.

Concluding, the current study provided a starting point for future research on adolescent resistance. The results suggest that solely a DSM label of an adolescent may not cause a therapist to give a less autonomy-supportive response. This would mean that the label of a therapist' client does not influence autonomy-supportive responses to resistance. However, this cannot be said for certain as there is a possibility that there is an effect of a DSM label that was not found within this specific research design. Based on this study it would be relevant, as mentioned before, to further explore other possible causes of differences in autonomy-supportive responding by therapists. By exploring, for example, the effect of a therapists' education in MI, we may come closer to understanding what causes therapists to respond autonomy-supportive and therefore closer to ensuring positive treatment outcomes for adolescents.

Appendix 1: References

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Appendix 2: Coding scheme (in Dutch)

2.1 Which scale do we use?

Codeurs geven één score die uitdrukt hoe autonomie-ondersteunend de reactie van de therapeut was. Deze score varieert tussen de twee polen directief en autonomie-ondersteunend. Het gaat om een globale score die staat voor de algehele indruk van de codeur over de reactie van de therapeut. De score wordt gegeven op een 7-punts Likertschaal:

- 1 = Heel directief
- 2 = Behoorlijk directief
- 3 = Enigszins directief
- 4 = Neutraal
- 5 = Enigszins autonomie-ondersteunend
- 6 = Behoorlijk autonomie-ondersteunend
- 7 = Heel autonomie-ondersteunend

2.2 What do the poles represent?

- Directief = de cliënt krijgt geen enkele keuzevrijheid om de opdracht niet of anders te maken; zijn mening lijkt er niet toe te doen. Een autoritaire benadering van de cliënt.
- Voorbeelden van directieve uitingen zijn: dwingend taalgebruik zoals “moeten”, kritiek leveren, confronteren, dreigen met consequenties, proberen te overtuigen, argumenten geven zonder naar het perspectief van de cliënt te vragen.
- Autonomie-ondersteunend = de cliënt krijgt de volledige keuzevrijheid om de opdracht niet of anders te maken; zijn mening is belangrijk. Een gelijkwaardige benadering van de cliënt. Voorbeelden van autonomie-ondersteunende uitingen zijn: geïnteresseerd taalgebruik, begrip tonen, positieve insteek kiezen, de cliënt bekrachtigen, argumenten bieden waarmee de cliënt het oneens mag zijn, vragen naar het perspectief van de cliënt.

2.3 When is which score given?

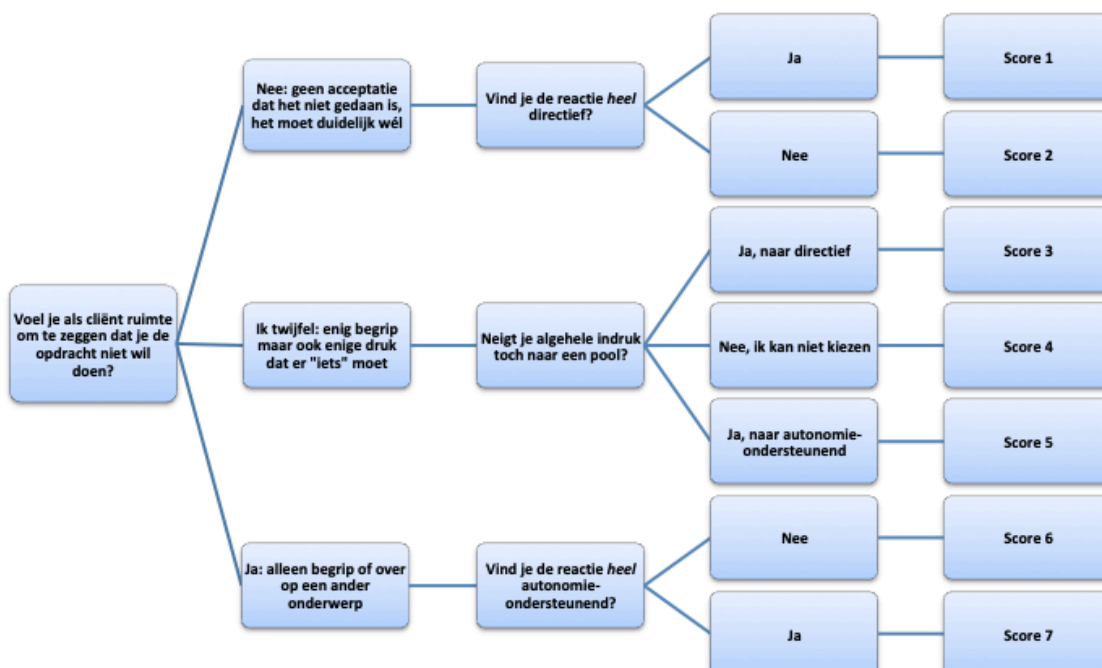
- Een “heel” score (1 en 7) geef je als je de reactie *heel* directief of autonomie-ondersteunend vindt. Dit kan komen doordat de therapeut één enkele uiting geeft die extreem bij een pool hoort of doordat de therapeut dusdanig veel uitingen geeft dat de algehele reactie een heel directieve of autonomie-ondersteunende indruk maakt.

- Een “behoorlijk” score (2 en 6) geef je als de reactie duidelijk op één pool wijst maar je deze niet *heel* directief of autonomie-ondersteunend vindt. Dit kan komen doordat de therapeut geen uitingen geeft die extreem bij een pool horen of wel zo’n uiting geeft maar daarnaast ook uitingen geeft van de andere pool zodat de algehele reactie geen *heel* indruk maakt.
- Een “enigszins” score (3 en 5) geef je als de reactie niet veel afwijkt van neutraal maar wel enigszins neigt naar directief of autonomie-ondersteunend. Dit kan komen doordat dat de uitingen zelf bijna neutraal lijken of dat er veel tegenstrijdige uitingen zijn waarbij de algehele indruk toch nét doorslaat naar directief of autonomie-ondersteunend.
- Een “neutraal” score (4) geeft je als de reactie over het geheel gezien neutraal is. Dit kan betekenen dat alle uitingen neutraal zijn (niets valt in te delen bij directief of autonomie-ondersteund) of dat de therapeut gelijke uitingen geeft van beide polen waardoor de algehele indruk in het midden eindigt.

2.4 Creating the audio fragments for coding

Voor het coderen hebben wij losse audiofragmenten gecreëerd waaraan niet te zien is in welke conditie de participant zat. Indien dit tijdens het coderen alsnog bekend was (bijvoorbeeld als een participant het benoemd) dan werd deze participant niet meegenomen in de dataset.

2.5 The coding scheme displayed in a figure



Appendix 3: Coding the responses (if differences existed between the experimenters)

Within the study, 18.8 percent of the recorded responses by therapists were used for training with the coding scheme. These responses were discussed and agreed upon by the first two experimenters and the independent experimenter. After calculating the reliability it was checked how much of the codes given by the first two experimenters differed. It appeared that 69.2 percent differed. In case the experimenters differed in their coding by one point maximum then the mean between both scores was calculated. If the two experimenters differed by more than one point (23.1%), the independent experimenter coded these responses and if they matched with either one of the first two experimenters then this score was given. After this, differences remained (15.2%); it was chosen to enter the score of the independent experimenter if this fell in between the scores of the first two experimenters. Lastly, one difference (1.3%) remained and it was chosen to use the middle score out of the three experimenters. After these codes were incorporated, a variable was created for the coded of the responses of the participants per condition.