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Research Article

The Effect of Rapport between Interviewer and Respondent on Attrition

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Abstract

Background: Non-response and attrition are serious problems in the field of longitudinal cohort studies. This paper examines the role of rapport between interviewers and respondents on attrition at a follow-up assessment.

Methods: Evaluation forms filled out by the respondents and the interviewers at the end of the baseline assessment were used to assess if good or bad rapport was built during the interview and whether this was associated with attrition at a self-administered follow-up assessment by mail. Respondents and interviewers judged the interview experience on pleasantness, tiresomeness and length of the interview.

Results: Our analyses first show significant associations between pleasantness, tiresomeness, experienced length of the interview and attrition. When respondents and interviewers judge the evaluation items more positive the chance of attrition at the subsequent assessment declined. Second, we compared the evaluation items of the interviewers and respondents to establish whether good or bad rapport was built and if this was associated with attrition. Results show that there is an association between good or bad rapport and attrition.

Conclusion: Rapport seems to play a role in attrition of respondents at follow-up assessments. This finding can be used to diminish attrition in longitudinal studies by using this information for training and guiding interviewers on building good rapport. Information about the interview experience and the rapport that was built during an assessment can also be used to tailor the approach of respondents at follow up measurements and thereby diminishing attrition.

Introduction

It is well known that most longitudinal studies have to deal with non-response and attrition rates during the course of the study [1] We define non response as: "The failure to achieve an interview" [2]. According to Morton-Williams [2] non-response consists of persons identified to participate in a study who refuse to cooperate (refusals) and people who are impossible to get in contact with (non-contacts). Attrition is defined as the reduction of respondents on follow-up assessments within longitudinal studies. This reduction might be caused by refusals of respondents, an inability to make contact with the respondents or the inability of respondents to participate because of physical or mental reasons. Non-response and attrition of respondents forms a serious problem in the field of longitudinal cohort studies. For example, attrition can reduce the original sample size significantly, resulting in lower statistical power for answering longitudinal research question. Furthermore, non-response and attrition of respondents may not be based on random characteristics and hereby introducing bias to the sample and consequently the representativeness of results [2-4]. Although statistical procedures exist to correct for attrition such as imputing values, the use of refreshment panels and weighting procedures [5-7], efforts should be made to keep attrition as low and as random as possible.

However, reducing non response and attrition has proved to be a challenge and extensive research is dedicated to identify characteristics that influence non-response and attrition. Two areas of research that have received extensive attention from researchers are interviewer characteristics and respondent characteristics. We will give a short overview of these areas of research. First interviewer characteristics have received much attention. Studies show for example, that more experienced interviewers have higher response rates when approaching a respondent than less experienced interviewers [2,8]. The attitude of the interviewer, personality traits and interpersonal skills are to some degree also important for gaining cooperation according to Jackle et al. [8]. Interviewers who believe in the legitimacy and usefulness of persuasion achieve more cooperation. Furthermore interviewers who scored higher on extroversion and interviewers who scored low on openness gained more cooperation as well as assertive interviewers. Results of Durrant, Groves, Staetsky and Steele [9] support these findings. Also, their results show that confidence of the interviewer is an important predictor of cooperation. Interviewers who scored high on confidence were better able to persuade respondents to participate. Next to the influence of the interviewer on response or non-response, the interviewer is also of influence on attrition. Interviewer continuity during the several waves of a longitudinal study is predictive of attrition according to Watson and Wooden [10]. Attrition is less when the same interviewers continue to conduct the interviews across multiple

waves. Moreover, Frankel and Hillygus [11] show that respondents who are interviewed by the most experienced interviewers at the baseline assessment are less likely to attrite at a follow-up assessment.

Second, respondent characteristics have been the topic of many non-response and attrition studies within longitudinal studies. Watson and Wooden [10] describe several respondent characteristics that are more or less associated with non-response and attrition. First, they examined characteristics that are predictive of non-response when contacted for an assessment within a longitudinal study. Moving, gender, age, ethnicity, marital status, education, home ownership, income, work status and level of urbanization are characteristics related to non-response. Next, Watson and Wooden [10] studied respondent characteristics that are predictive of attrition after interviewers were able to make contact with the respondent. Age, ethnicity, education, employment, long-term health conditions and number of adults living in the household are predictive of attrition in longitudinal studies. Fitzgerald, Gottschalk and Moffit [12] also studied respondent characteristics associated with sample attrition in a panel study. Their results show that respondents with a lower socioeconomic status where more at risk to attrite. Unstable income, change in marital status and a number of moves was also predictive of attrition.

Interviewer characteristics and respondent characteristics have often been studied as separate factors that influence attrition and the results mentioned above do illustrate how characteristics of the interviewer and the respondent can influence attrition. However we argue that interaction between interviewer and respondent, resulting in rapport, might be another important factor that plays a role in the attrition. Studies have already shown the importance of rapport between patient and therapist for therapy compliance [13]. The role of rapport in complying with research assessment has been studied less extensively. It seems plausible that rapport develops between the respondent and the interviewer based on the interaction between them during the interview and in turn this rapport could be of influence in creating a pleasant experience. Whether respondents had a pleasant experience or not might be instrumental in the decision to participate in a follow-up interview. We hypothesize that establishing a good rapport is essential for creating a positive interview experience and this results in the reduction of attrition at follow-up. We define rapport as: *"a relationship that is built on mutual trust and understanding"* (www.dictionary.com).

There is some indirect support for our hypothesis that rapport is related to attrition within longitudinal studies. The results of Pickery, Loosveldt and Carton [14] are for example in line with the idea that rapport is important in retaining respondents. The researchers show that the interviewer who conducts the baseline assessment with the respondent is strongly associated with participation from that respondent on the follow-up assessment. The researchers suggest that a positive interview experience at baseline results in less attrition at follow-up and that the interviewer is strongly related to the interview experience of the respondent. These results imply that rapport is of importance for the retention of respondents. De Graaf et al. [15] have examined the relationship between a positive interview experience and attrition more explicitly. They have found that a less positive evaluation of the baseline assessment is a strong predictor of attrition on follow-up assessments. Respondents who evaluate their experience at baseline assessment as neutral or unpleasant are more likely to refuse participation at the follow-up assessment. Plewis, Calderwood and Mostafa [16] used observations of the interviewer instead of evaluations of the respondent to predict response on the following wave. According to their results, observed enjoyment of the interview by the respondent and the estimation of the interviewer whether the respondent would participate again is indeed predictive of response. The results of De Graaf et al. [15] and Plewis, Calderwood and Mostafa [16] show from either the respondent's perspective or the interviewer's perspective that a positive interview experience is important for the respondent to continue participating in a study. To examine more directly whether rapport between interviewer and respondent is important for a positive interview experience we have to take in to account the perspectives of the interviewer as well as the opinion of the respondent on the interview experience. A comparison of these evaluations will give more clarity on the role of rapport on attrition, arguing that a difference in evaluation indicates poor rapport building.

This paper will examine attrition within the Netherlands Study of Depression and Anxiety (NESDA), expanding on previous research of Lamers et al. [17]. Lamers et al. [17] used data from NESDA, a longitudinal epidemiological study with patients and healthy controls, [17] to examine attrition within the NESDA sample. The researchers studied socio-demographic and psychiatric variables that influence attrition on a follow-up assessment. Results are mostly in line with the findings of Watson and Wooden [10] and show that age, education, not being of North European descent, sampling site are associated with attrition. Furthermore, Lamers et al. [17] found that no previous experience with participating in a study and having a depressive disorder at baseline are also associated with attrition.

We will examine the association of rapport between interviewer and respondent during the baseline assessment and attrition on a follow-up (T1) assessment. T1 consists of a self-administered paper questionnaire. We choose this questionnaire because it does not initially require a recruitment process in which the interviewer can influence the decision of the respondent to participate. Here-by eliminating the recruitment stage as possible factor for attrition.

To reiterate, above mentioned studies already suggest that proxies of interview experience as seen from the view of either the respondent or the interviewer are important in retaining respondents. In this study we will examine interview experience as judged by both the respondent and the interviewer. A discrepancy between their evaluations will be indicative of poor rapport. Rapport is measured with the evaluation that respondents and interviewers filled out at the end of the baseline assessment containing questions about the (i) length of the interview, (ii) pleasantness and (iii) tiresomeness. First we will examine the relationship between the evaluation items and attrition. Next, we will examine if there is a discrepancy between the respondents evaluations of the interview and the interviewers evaluation of the same interview. And if so, is this discrepancy associated with attrition at follow-up to establish if poor rapport plays a role in attrition.

Finally, because Lamers et al. [17] showed that socio-demographic and depressive characteristics of the respondent influence attrition on a follow-up assessment we will control for these respondent characteristics when examining the relationship between rapport and attrition. We can imagine that the presence of depressive characteristics for example, could influence the establishment of a good rapport between interviewer and respondent.

Methods

Sample

For this study we used the sample of the Netherlands Study of Depression and Anxiety (NESDA) as described in more detail by Penninx et al. (2008). Data of the NESDA study are suitable for our analyses because it consists of a large sample of respondents with and without psychopathology (N=2981) who participated in a longitudinal naturalistic cohort study. Respondents were between the ages of 18-65 years when included in the study. At baseline, the sample consisted of respondents with a lifetime or current diagnosis of anxiety and/or depression (n=2329) and a smaller group of healthy controls (n=652). Inclusion of respondents took place from September 2004 till February 2007 in Amsterdam, Groningen and Leiden. Respondents were recruited from the general population (n=564) primary care (n=1610) and specialized mental health care (n=807). The study protocol was approved by the ethical review boards of all participating centers, and all participants gave written informed consent. Respondents were excluded if they had a primary clinical diagnosis of psychotic disorder, obsessive compulsive disorder, bipolar disorder, or if they had a severe addiction disorder. Respondents were also excluded if they were not fluent in Dutch.

Of the 2981 respondents who were approached for the follow-up assessment 511 attrite and two respondents died in the period between the two assessments. For the present study we excluded respondents from our analyses if they died in between the two assessments, if they did not fill out the evaluation at the end of the baseline assessment, if they did not complete the baseline assessment in one session or if the interview duration was not registered correctly or not registered at all. For respondents with a missing or incomplete registration of interview duration we were not able to judge whether the assessment was conducted in one session or whether the interview was extremely long and thereby not comparable to the assessments of the other respondents. A sample of 2870 remained for our analyses.

Baseline assessment

Respondents were invited to one of the clinical sites in Amsterdam, Groningen or Leiden in the Netherlands for an assessment that took place during the morning. During the assessment, information on psychopathology, demographic characteristics, physical and psychosocial functioning was collected with a computer-assisted structured interview. The assessment further included medical measurements, computer tasks, two self-administered questionnaires and an evaluation form for both the respondents and the interviewer. After the assessment, participants received a gift certificate and reimbursement of travel costs.

Follow-up assessment

The follow-up assessment took place one year after the baseline assessment. Respondents received a 25 pages long paper questionnaire with a letter asking them to fill out the questionnaire at home and return it by mail with a prepaid envelope. The questionnaire covered subjects such as demographic information and information about mental and physical health. It was expected that it would take the respondents about 30 minutes to complete the questionnaire. When respondents did not return the questionnaires within a few weeks, they received a reminder by mail to ask them again to fill out the questionnaire.

Recruitment and training

Interviewers were recruited via advertisements. Interviewers were required to have at least finished an intermediate vocational education/community college level education. They also needed to have good social skills, affinity with the research population and preferably experience in conducting semi-structured interviews.

In total 47 interviewers were hired at the beginning and during the baseline assessment. The newly recruited interviewers received extensive training (5 days) in conducting the NESDA assessment. Training was given by the fieldwork coordinator following a detailed training manual ensuring all the interviewers received the same amount and quality of training. The interviewers also received feedback on their interviewing skills during the baseline assessment period.

Measurements

Attrition: Our primary outcome measure was a dichotomous (yes/no) variable for attrition on the follow-up assessment one year after the baseline assessment.

Evaluation: Rapport between the interviewer and respondent was measured with an evaluation form measuring pleasantness, tiresomeness and length of the interview. We asked the respondents the following questions, first, *"How tiresome was the entire interview?* Measured on a 5-point scale ranging from not tiresome at all to very tiresome. Second we asked *"What's your opinion on the length of the entire interview?"* measured on a 4-point scale ranging from it was clearly way too long to it could have gone on even longer. Finally we asked: *"What's your opinion on participating with the interview?"* measured on a 4-point scale ranging from pleasant to unpleasant.

We asked the interviewers comparable but not identical questions about the interview experience of the respondent. First we asked, *"Overall, how did the interview with the respondent go?"* Measured on a 6-point scale ranging from very unpleasant to very pleasant. *"How tiresome was the interview for the respondent"* was another question for the interviewers measured on a 5-point scale ranging from not tiresome at all to very tiresome. Third, we asked *"Did the respondent ask at any point during the interview how much longer it was going to take?"* This was measured on a 3-point scale ranging from no, yes and yes, multiple times. For the purpose of analyses we choose to convert this 3-point scale in to a dichotomous scale because the group *"yes, several times"* only contained 22 respondents.

To measure the effect of the discrepancy between interviewer and respondent on attrition we converted all the scales of the evaluation items in to dichotomous scales to make the scales more comparable.

Socio-demographic and psychiatric characteristics: For this study we controlled for the socio-demographic characteristics and the presence of a current (present in the last month) Major Depressive Disorder (MDD) based on previous research by Lamers et al. (2012) [17]. Age, education, research site, North European ancestry (yes/no) and the presence of MDD at baseline assessment were associated with attrition within the NESDA sample. Next to these variables we also included the following demographic characteristics: gender, urbanization grade, employment status and partner status. MDD was measured with the Composite International Diagnostic Interview (CIDI) lifetime version 2.1.

Statistical analyses

Analyses were performed using IBM SPSS statistics 22. Descriptive statistics were used to examine the baseline socio-demographic characteristics of respondents at the follow-up assessment. A chi-square test and ANOVA were subsequently used to describe differences in socio-demographic characteristics between respondents who participated on follow-up and respondents who did attrite on follow-up. Next, we used a chi-square test to describe the distribution of answers on the evaluation and the differences between respondents who participated on follow-up and respondents who did attrite. We performed logistic regression analyses to examine the relationship between the evaluation items of the respondents and interviewers while controlling for any confounding effects of the socio-demographic characteristics and the presence of a major depressive disorder. Finally, we used chi-square and post hoc analyses to describe the discrepancy in evaluation items between respondent and interviewer.

Results

Table 1 shows the socio-demographic characteristics and the presence of current MDD of the respondents who participated at the follow-up assessment of NESDA and the respondents who did not participate. We found that age, gender, level of education, employment status, partner status, not being of North European descent and the presence of current MDD at baseline were related to attrition at follow-up.

Table 1: Baseline characteristics.

	Respondents in total (n= 2870)	Participating respondents (n=2357)	Nonrespondents (n= 513)	*P*
Sociodemographic variables				
Age (mean)	41.8	42.7	37.7	< .001
Gender (%)				
Female	66.5	67.9	59.8	< .001
Education in years (mean)	12.2	12.3	11.4	< .001
Sampling site (%)				
Amsterdam	39.3	38.8	41.3	
Leiden	31.1	31.6	29.1	0.46
Groningen	29.6	29.6	29.6	
Urbanization grade (%)				
Extremely urbanized	56.8	56.6	58.1	
Strongly urbanized	12.8	12.6	13.6	
Moderately urbanized	15.5	15.4	16.0	0.45
Hardly urbanized	9.0	9.3	7.6	
Not urbanized	6.0	6.2	4.7	
Employment status (%)				
Employed	60.2	61.6	54.0	0.002
Partner status (%)				
Partner	69.6	70.6	64.9	0.01
Being of North-European ancestry (%)				
Yes	95.2	95.8	92.2	< .001
Presence of a current MDD (%)	26.7	24.5	36.8	< .001

a. We used a chi-square test to examine the difference in sociodemographic characteristics and MDD between respondents and nonrespondents. For partner status and being of North-European ancestry we used a one-way ANOVA.

Table 2 shows the distribution of answers on the evaluation for the respondents and the interviewers. We performed a chi-square test to examine the relationship between the answers on the evaluation and attrition on the follow-up assessment. Results showed a significant association between the evaluation items and attrition at follow-up.

Table 2: Overview evaluation items.

	Respondents in total N=2870	Participating respondents N=2357	Non respondents N=513	*P*
	%	%	%	
Evaluation items for respondents				
Tiresomeness				
Not tiresome at all	23.4	24.4	18.7	
Not tiresome	2.,6	27.7	27.5	
A bit tiresome	34.7	34.9	33.9	0.001
Tiresome	12.2	11.2	17	
Very tiresome	2.1	1.9	2.9	
Length of the interview?				
It was obviously much too long	2	1.4	4.3	
It took a bit too long	22.5	21.7	26.4	<.001
Length of the interview was exactly right	62.7	63.5	59	
It could have continued even longer	12.8	13.4	10.4	
Pleasantness?				
fun	64.4	66.2	56.3	
Somewhat fun	24.6	23,7	28.5	<.001
Neither fun, nor unpleasant	10.7	9.9	14.2	
unpleasant	0.3	0.2	1	
Evaluation items for interviewers				
Pleasantness?				
Very unpleasant	0.3	0.4	0	
Somewhat unpleasant	1.7	1.4	2.7	
Neither pleasant nor unpleasant	5.4	5.1	6.8	<.001
Somewhat pleasant	13.8	12.5	19.9	
Pleasant	62.2	62.9	59.1	
Very pleasant	16.6	17.7	11.5	
Tiresomeness?				
Not tiresome at all	7.1	7.6	5.3	
Not tiresome	32.3	33.5	26.7	
A bit tiresome	38.9	39.4	36.5	<.001
Tiresome	18.8	17.1	26.7	
Very tiresome	2.9	2.5	4.9	
Length of the interview?				
no	91.7	92.6	87.7	
yes, a few times	7.5	6.8	10.9	0.001
yes, several times	0.8	0.6	1.4	

a. We used a chi-square test to examine the distribution of answers on the evaluation items between respondents and nonrespondents.

To further examine the relationship between the evaluation items and attrition taking into account the socio-demographic characteristics we performed a logistic regression analyses. Table 2 shows that the groups who answered yes, on the evaluation question *"did the respondent ask who much longer the interview was going to take"* (about length of the interview as judged by the interviewer)

were very small, therefore we choose to treat both yes options (yes, a few times and yes, several times) as one category for the following analyses. Table 3 shows three models, the first model represents the Univariate analyses to examine the effect of the answers on the evaluation items on participation at follow-up assessment, in the second model we added covariates to control for any confounding effects of the baseline socio-demographic characteristics on attrition. The third model shows the relationship between the evaluation items and attrition at follow-up while controlling for socio-demographic characteristics and the presence of MDD.

Results showed a significant relationship between all the items of the respondent's evaluation and attrition. These results remained significant after controlling for confounding effects of the previous mentioned socio-demographic characteristics. First, we found a negative relationship between tiresomeness and participation on follow-up. The chance for participation at follow-up declined the more tiresome the respondents experienced the assessment to be. Second, we found a positive relationship between experienced length of the interview and participation on follow-up. Chances at participation increased the more positive the respondents evaluated the length of the interview. Third, results showed a negative relationship between an unpleasant experience and participation at follow-up. The more unpleasant the respondents experienced the assessment to be; the lower the chances were of participation at follow-up.

We found similar results for the evaluations that were filled out by the interviewers table 3. First we found a negative relationship between how tiresome the interviewer evaluated the interview to be for the respondent and participation at follow-up. The more tiresome the assessment was for the respondent according to the interviewer, the lower the chances were for participation at the follow-up assessment. Second, table 3 showed a negative relationship between if the respondent asked how much longer the interview was going to take and participation on follow-up. When respondents did ask how much longer the interview was going to take, the chance for participation in the follow-up declined. Third, we found a relationship between how pleasant the interviewer experienced the interview to be and participation at follow-up. The chance for participation increased when the interviewer judged the interview experience more pleasant Again, the results were not confounded by socio-demographic characteristics of respondents that already proved to have an effect on attrition.

Next, we controlled for any confounding effect of the presence of a major depressive disorder (MDD) at baseline on evaluation and attrition at follow-up. Results showed that MDD did have a relationship with attrition, but the effect of the evaluation on attrition maintained significant after controlling for MDD.

Finally we examined if a discrepancy in answers on the evaluation between interviewers and respondents was predictive of attrition at follow-up. Table 4 showed that a discrepancy between interviewer and respondent was indeed predictive of attrition. Unfortunately post hoc analyses did not show the direction of the effects apart from the tiresomeness item. For this particular item the post hoc test showed that the chance of participating at follow-up assessment was larger when the scores of the respondents and interviewers were in line (χ^2 =10,43, df=2, p=.005). When interviewers scored tiresomeness more negatively than the respondents the chance of attrition on follow-up was larger (χ^2 =12.32, df=2; p=.002).

Table 3: Univariate and multivariate analyses of the relationship between the three components of the respondent's evaluation and participation on follow-up.

	Model 1		Model 2[a]		Model 3[b]	
	OR	95% CI	OR	95% CI	OR	95% CI
Respondent's evaluation items						
Tiresomeness	0.84	0.76-0.92***	0.8	0.73-0.89***	0.84	0.76-0.93**
Lenght of interview	1.38	1.19-1.56***	1.44	1.23-1.68***	1.39	1.18-1.62***
pleasantness	0.74	0.65-0.84***	0.7	0.61-0.81***	0.72	0.63-0.83***
Interviewer's evaluation items						
Tiresomeness	0.74	0.67-0.82***	0.73	0.65-0.81***	0.68	0.68-0.86***
Lenght of Interview[c]	0.57	0.42-0.79***	0.61	0.46-0.80***	0.6	0.42-0.79**
pleasantness	1.29	1.16-1.44***	1.33	1.18-1.50***	1.3	1.15-1.46***

[a] In model 2 we put the following sociodemographic variables into our model: gender, age, partner status, level of education, being of north European descent, employment status and level of urbanization.

[b] In model 2 we put the following sociodemographic variables into our model: gender, age, partner status, level of education, being of north European descent, employment status and level of urbanization. Next to the sociodemographic variables, we also put current major depressive disorder into our model.

[c] Length of interviewer assessed by the interviewers is based on a dichotomized variable. ** $P < 0.01$,
*** $P < 0.001$

Table 4: The effect of different forms of rapport between interviewer and respondent on attrition.

	Respondents in total (n= 2870)	Participating respondents (n=2357)	Non-respondents (n= 513)	*P*
Discrepancy between interviewers and respondents on pleasantness				
Good rapport	85.7	86.5	81.9	0.007
Bad rapport	14.3	13.5	18.1	
Discrepancy between interviewers and respondents on tiresomeness				
Good rapport	84.4	85.4	79.7	0.001
Bad rapport	15.6	14.6	20.3	
Discrepancy between interviewers and respondents on interview length				
Good rapport	76.8	77.9	71.9	0.004
Bad rapport	23.2	22.1	28.1	
Discrepancy between interviewers and respondents on total score				
Good rapport	65.1	66.1	60.2	0.01
Bad rapport	34.9	33.9	39.8	

a. We used a chi-square test to examine the effects of discrepancy between interviewers and respondents on the evaluation on attrition.

Discussion

Does rapport play a role in the attrition or retention of respondents? According to our results it does. Our findings support the results of previous studies that interview experience plays a role in attrition of respondents (Pickery et al., 2001; De Graaf et al., 2013). We showed that interview experience influences the decision to participate with the follow-up study independent of respondent characteristics. When the interviewer or the respondent judges the interview more negatively on pleasantness, tiresomeness and length of the interview, the chance of participation on the follow-up assessment declines. Furthermore the results showed that when respondents and interviewers agree

or disagree on the evaluation of the assessment this influences the decision of the respondent whether to participate or not. According to our definition of rapport *"as a relationship that is built on mutual trust and understanding"* (www.dictionary.com) we can argue that a discrepancy between interviewer and respondent is indicative of poor rapport building. When the interviewer and respondent do not agree on the evaluation of the interview experience we could say that there is a lack of mutual understanding and thus poor rapport building.

Our findings have several implications for fieldwork management to decrease attrition. First, we can use the information of our study in the selection of suitable interviewers. As previously mentioned an understanding and trusting attitude is the foundation of good rapport building. These traits should therefore receive substantial attention during the selection interview.

Second is the training of the suitable interviewers. It is not only important to train interviewers in how to conduct the interview according to protocol and to train them in how to persuade respondents to participate but also to train them in interacting with the respondents during the assessment self. As rapport is built on mutual trust and understanding it seems particularly important to train interviewers on showing appropriate trust and understanding.

Third, the results show implications for approaching the respondent for participating with a follow-up assessment. When it is known that there was poor rapport building during the previous assessment it might be sensible to let a different, experienced interviewer make the first contact.

Finally, the results show important implications for tailoring the follow-up assessment to the needs of the respondent as shown by the evaluation. Information about the experienced length of the interview, tiresomeness and pleasantness can be used to tailor the assessment in a way that will make it more attractive for respondents to comply with a follow-up assessment. For instance, when a respondent evaluated the previous assessment as very tiresome, it is possible to tailor the follow-up assessment in a way that incorporates more breaks.

Strengths and limitations

We were able to perform our analyses on the NESDA sample, which meant that we were able to study a large sample. We did not only examine the interview experience as reported by the respondent but the interview experience as reported by the interviewer was also available, making it possible to study the concept of rapport. We choose to study attrition on a follow-up assessment consisting of a paper questionnaire that the respondents could fill out from their own home. As argued before, we choose this questionnaire because it does not initially require a recruitment process in which the interviewer can influence the decision of the respondent to participate. Hereby eliminating the recruitment stage as possible factor for attrition. It could however be argued that attrition on a questionnaire might differ from attrition on a face to face assessment. A questionnaire might be more accessible and hereby limiting attrition of respondents who might attrite if they were asked to come to the research site for a face to face assessment. Future research focused on attrition at a face to face follow-up assessment could show if our results are generalisable to other modes of assessment.

Another limitation of our study is that the evaluation items of the interviewers and respondents were not identical in the way they were formulated and in answering scale. This made it necessary to transform these variables in to dichotomous variables. Identical questions and scales might have resulted in even stronger, more clear results. For future research we would suggest to develop an identical evaluation form for both interviewers as respondent.

Conclusion

For longitudinal studies it is important to limit attrition as much as possible. This study made a contribution to gaining more insight into factors that influence the decision of the participant in a follow-up assessment. Rapport between respondent and interviewer has received relatively little attention in attrition studies, while we have argued that it could play an important role in attrition of respondents. Our study is a first step in researching the elusive concept of rapport. For future research we recommend to incorporate questions in the evaluation that measure rapport more explicitly. It could, for example, incorporate a question about feeling understood by the interviewer during the assessment. When we collect more insight into rapport building with respondents we might be able to diminish attrition by selecting and training suitable interviewers and tailor the approach and assessment of respondents.

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