The distribution and role of causal beliefs, inferences of responsibility, and moral emotions on willingness to help addicts among Norwegian adults

Jostein Rise[1,*], Leif Edvard Aarø[2], Torleif Halkjelsvik[3], Velibor Bobo Kovac[4]

[1] Norwegian Institute for Alcohol and Drug Research, Oslo, Norway
[2] National Institute of Public Health, Bergen, Norway
[3] Norwegian Institute for Alcohol and Drug Research, Oslo, Norway
[4] Department of Education, University of Agder, Kristiansand, Norway

[*] Jostein Rise, Norwegian Institute for Alcohol and Drug Research, Postbox 565, Sentrum, Oslo 0105, Norway,
+47 40 64 37 28 jr@sirus.no

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The Distribution and Role of Causal Beliefs, Inferences of Responsibility and Moral

Emotions on Willingness to Help Addicts Among Norwegian Adults

Jostein Rise[1], Leif Edvard Aarø[2], Torleif Halkjelsvik[1] and Velibor Bobo Kovac[3]

[1]Norwegian Institute for Alcohol and Drug Research, Oslo, Norway (th@sirus.no)

[2]National Institute for Public Health, Oslo, Norway (LeifEdvard.Aaro@fhi.no)

[3]University of Agder, Department of Education, Kristiansand, Norway (bobo.kovac@uia.no)

Address for correspondence

Jostein Rise, Norwegian Institute for Alcohol and Drug Research, Oslo, Norway

PoBox 565, Sentrum, 0105 Oslo; jr@sirus.no

Abstract

The purpose of the present study was to explore the distribution and role of causal beliefs, inferences of responsibility and moral emotions on deservingness of help to addicts among Norwegian adults using the social motivational model of Weiner. The data derives from a web panel survey of Norwegian adults aged 20 to 69 (N=1062, response rate 67 %) in 2011. They responded to a questionnaire tapping into the above measures for nine different addictions in terms of a hypothetical person: "Think of a person addicted to---". The respondents mainly located the cause of the addictions inside the person, and attributed the responsibility for the problem to the individual. In general, addicted persons did not receive a high mean level of sympathy, while a high mean level of willingness to provide help and assistance was reported. However, there were substantial variations among the nine addictions as to mean rating levels, with snus and sedatives as the two extreme counterparts. Separate SEM-analyses for the nine addictions showed support for Weiner's mediation model with inferences of responsibility and sympathy (moral emotion) as effective mediators for deservingness of help. This pattern was stable across the nine addictions. Implications for interventions and possible limitations are discussed.

In recent years there has been an increasing amount of measures to offer treatment, help and assistance to persons addicted to various substances in Norway as well as in other European countries (EMCCDDA, 2011). This pertains to legal as well as illegal substances. For legal substances treatment facilities are mostly directed towards getting rid of addictions, while for illegal drugs harm reduction measures come in addition. The existence of several addiction groups with different needs raises a number of questions such as which groups should be offered treatment and help, what kind of treatment they should get, and how much they should receive. In this context, perceptions among lay people may be of great relevance due to their potential influence on policy decisions. Accordingly, it may be of interest to provide a better understanding of determinants, and the underlying process, of help giving to addicted persons.

Help giving is a major research area in social psychology, both in the area of pro-social behavior (Batson, 1990) and as part of attributional approaches which have invoked causal beliefs, inferences of responsibility and moral emotions to account for help giving (cf. Weiner, 1995; 2006). For example, Weiner's theory of social motivation (see Weiner, 1995; 2006) outlines a complex psychological process with a number of components intervening between the moment a lay perceiver is confronted with a hypothetical person with a problem, and the judgment whether or not this person should be given help or assistance. Applied to addictions, this account proposes that people start with a causal search for why a person has become addicted in the first place by considering whether the cause of the addictive state is located inside the person (internal causality), for example due to personal need, weakness or insufficiency, and the extent to which it is located outside the person (external causality), for example strong addictiveness of various substances, a bad childhood or bad living conditions. The higher the level of perceived internal causality, the stronger the inference that a person is morally responsible for a particular problem, while the converse is assumed to be the case for external causality. Perceived responsibility also depends on the extent to which the cause is

controllable by being subject to volitional changes by the self. The more the cause is controllable by the self, the higher the assignment of responsibility. Furthermore, Weiner argues that the process of assigning responsibility elicits the moral emotions of sympathy and anger. A high level of responsibility inference elicits a low level of perceived sympathy and a high level of perceived anger. The elicitation of moral emotions then provides a motivational impetus for subsequent action. The higher the level of perceived sympathy, the higher the level of provision of help to the addicted person, and conversely, the higher the level of elicited anger, the lower the level of helping.

For example, Weiner, Perry and Magnusson (1988) investigated ten different stigmata (AIDS, Alzheimer's disease, blindness, cancer, child abuse, drug addiction, heart disease, obesity, paraplegia, and Vietnam War syndrome) by having the respondents rating them on perceived responsibility, anger, sympathy and intended actions (assistance and donations). The results showed that stigmatized persons were not held responsible for uncontrollable physical problems (Alzheimer's disease, blindness, cancer, heart disease, paraplegia, and Vietnam War syndrome), while stigmas for which individuals were held responsible were controllable behavioral and mental problems (AIDS, child abuse, drug addiction, and obesity). Individuals held responsible for their stigmata were rated low on sympathy, high on anger and received low ratings on willingness to provide help. In contrast, persons with stigma for which they were not held responsible received high ratings on sympathy, a relatively low level of anger, and a high level of willingness to help. These results suggest that reactions towards stigmatized persons derive partly from moral considerations in the sense that individuals in the former category may be construed as moral failures imbued with negative moral affects or "sinners", while individuals in the latter category are innocent victims of sickness (Weiner, 1991).

In the context of addictive behaviors (Kymalainen & Weisman, 2004), participants read three different vignettes describing a hypothetical sibling with the following disorders: substance abuse, schizophrenia, and physical illness. The results showed that the hypothetical patient with a substance-abuse disorder was judged to have the highest level of control over illness (and symptoms), and elicited the highest level of negative emotions. In contrast, the patient with a physical illness was judged to have the lowest level of control, the lowest level of negative emotional reactions, and the highest level of willingness to help. These results tend to support those of the above study by Weiner and colleagues (1988).

Furthermore, the study of Weiner et al. (1988) provided empirical support for the theoretical ordering of the variables which are assumed to mediate between the initial negative event (in this case stigmatized conditions) and the activated behavioral reaction. Consistent with this, it was observed that the greater the number of steps intervening between the stigma origin and willingness to help, the lower the average correlations. Thus the average correlation obtained between stigma source and judgment of responsibility was reported to be $r = .63$, between stigma source and positive affect $r = .44$, and between stigma source and willingness to help $r = .38$. These results are consistent with the idea that the predictive power of stigma source became diluted as the motivational sequence progressed through the steps due to the intervening mediators.

Another empirical illustration of the model derives from a meta-analysis on help giving. In this case, a model in which perceptions of control (akin to responsibility) influenced anger (beta = .52) and sympathy (beta = -.45), which in turn influenced help giving (betas of sympathy = .38 and anger = -.07), provided a good fit to the data (Rudolph, Roesch, Gretemeyer & Weiner, 2004). Including a direct path from perceptions of control to help giving did not improve the fit of the models. This supports the idea that cognitions are distal determinants of behavior which exert their effects on help giving through moral emotions—in

particular sympathy. A variant of the model has been applied to predict discrimination and helping related to mental illness with basically similar results (Corrigan, Markowitz, Watson, Rowan & Kubiak, 2003).

As noted in the introduction there is a lack of studies which compare perceptions by ordinary people on help giving, along with cognitive and emotional antecedents as outlined above, across different types of addiction problems. One notable exception is a recent study based on a representative sample of the Swedish adult population by Blomquist (2009; see also Blomquist, 2012). In this study, responsibility judgments for nine different types of addictions were investigated following the reasoning of Brickman and coworkers (1982). They distinguished between responsibility for the onset of a negative event or problem and responsibility for solving the problem. By crossing the two dimensions, four models of helping and coping emerged specifying how others will react towards the needy. In the *moral model* the needy are considered to be responsible for the onset as well as the solution of the problem; the underlying idea is that the needy lacks motivation and fail to self-regulate. In the *compensatory model*, the needy are not seen as responsible for their plights but responsible for the solution, so they need only power. In the *medical model* the needy are neither seen as responsible for the onset of their misfortune nor for its solution; in other words, they are diseased and should receive treatment. In the *enlightenment model* they are responsible for the problem but not for the solution of the problem, the persons need to accept a negative view of themselves and accept submission to others. Blomquist (2009) observed that the moral and the enlightenment models were more commonly endorsed than the two other models. On the other hand, the respondents applied various models for the different addictions. For cigarettes and snus (and to some extent gambling), the respondents applied the moral model, for the hard drugs (cocaine, heroin and amphetamine) they applied a

combination of the enlightenment and the medical model, while in a more diversified middle group containing alcohol, cannabis and sedatives, the compensatory model prevailed.

The present study takes a broader perspective of lay perceptions by adopting a full social motivational account of help giving, which involves causal attributions (internal and external causes), judgment of responsibility, and moral emotions as antecedents (cf. Weiner, 1995; 2006). This allows a more thorough exploration of the nine addiction problems employed in the Blomquist study (Blomquist, 2009; 2012). We will investigate the absolute rating levels of the various model components, which likely will differ among the nine addictions, and we will explore the generality of the Weiner model for various types of addictions to reveal the underlying processes behind judgments of helping.

The current interest is not on help giving linked to normative contexts in which addicted persons have a right to treatment of help, such as reflected in the belief that health care professionals should treat everybody regardless of underlying cause. In order to try to "remove" such biasing aspects of motivation to help, we asked the respondents to ignore the issue of entitlement of treatment and the humanitarian aspect of helping when they were requested to estimate the amount of help and assistance a particular addicted person deserved. Such a measure of deservingness of help has been applied as an indicator of help giving in an attributional analysis of flood victims (Skitka, 1999). Thus deservingness of help is used throughout the text as an indicator of help giving.

The starting point of our analyses is presented in Figure 1. We assume that external and internal attributions affect the level of responsibility, responsibility judgments cause positive and negative emotional reactions, and in turn, emotional reactions, particularly sympathy, should predict deservingness of help. Note that we have based our model on the research presented by Zucker and Weiner (1993, Figure 1), which did not include controllability as a separate component. Although one may distinguish between controllability

and the other components of the model (see Weiner, 2011), we assume that the level of controllability is sufficiently covered through the components internal causation, external causation and responsibility.

Insert figure 1 here

The specific empirical questions to be explored in the present study were twofold. The first objective was descriptive by providing a documentation of the level and intensity of the components in Figure 1 for the following nine addictions—cannabis, heroin, smoking, snus, gambling, sedatives, amphetamine, cocaine and alcohol—in a sample of the adult Norwegian population.

The second objective has a more theoretical flavor by exploring in more details whether judgment of responsibility mediated the effect of causal beliefs on moral emotions, whether the moral emotions in turn mediated the effects of the antecedents on deservingness of help, and whether we would find the same patterns of associations among the nine addictions. For this purpose we applied a structural equation modeling approach which will be outlined below.

Material and Methods

The data derives from a web survey performed by TNS Gallup in March 2011. Respondents were drawn from a web panel with members originally recruited via telephone. The age range in the present study was 20-69 (Mean age 46.7, SD = 14.20) and the web panel comprised approximately 50000 persons in this age range. In total, 2964 of these were sent a questionnaire by e-mail. One reminder was given, and the survey was closed when 2000 respondents were obtained. The response rate was 67%. About half the respondents ($N =$

1062) were confronted with the statement "Think of a person who is addicted to […]" for each of the nine addictions, and were included in the present study. They were subsequently asked several questions designed to measure the theoretical components of the Weiner model. Close to half the respondents were men (50.3%).

Internal causality was measured with the question "Do you believe that the cause of the addiction for this person can be found inside the person?" *External causality* was measured with the question "Do you believe the cause of the addiction for this person can be found outside the person?" *Responsibility* was measured with the following question: "Do you believe that the person should be held responsible for having become addicted to X?" For the three questions above the response scale went from (1) "to a very low extent" to (7) "to a very high extent".

Sympathy was assessed with the following question "How strong is your sympathy for this person?" using the response scale (1) "very low" to (7) "very strong". *Anger* was measured by the question "How much anger do you feel for this person?" using the response scale (1) "very little" to (7) "very much". *Deservingness of help* was measured with the question "If you ignore that this person may be entitled to receive treatment and ought to be given help from humanitarian reasons, how much assistance and help do you think this person deserves" using the same response scale. Each question was provided with a "don't know" category, and these responses were treated as missing.

Figure 1, based on the writings of Weiner (1995; 2006), served as the starting configuration for the path models developed for each of the nine addictions. We assumed that the two attributions of causality (internal and external) constitute distinct and separate dimensions, but that they nevertheless would be (negatively) correlated, and they were thus allowed to correlate in the model. Next, it was expected that the two attributions had direct

effects on perceptions of responsibility, and that their possible influence on moral emotions, sympathy and anger, as well as on willingness to help, were mediated by perceptions of responsibility. Furthermore, it was predicted that beliefs about responsibility directly influenced sympathy and anger which in turn mediated the effect on deservingness of help. The residuals of sympathy and anger were allowed to correlate.

The Mplus software (Muthén &Muthén, 1998-2011) was used for testing the path models. Associations which were specified in the starting model (Figure 1), but turned out to be insignificant, were not excluded from the models. Additional associations were added if they obtained statistical significance ($p < .01$) during the testing of modification indices. The MLR estimator (robust maximum likelihood) was used. The values of the scales are somewhat arbitrary. Therefore, we report standardized coefficients. We were more interested in the strength of associations with the distributions of the variables taken into account than in direct comparisons of unstandardized slopes.

Results

Mean levels of Model Components

Table 1 presents the mean levels (scales from 1 "very low level" to 7 "very high level") and their associated standard deviations for all variables. The mean rating level of *internal causality* for all addictions was 5.70 (SD = 1.39), and the highest levels were observed for snus, smoking, and gambling, and the lowest mean level was observed for sedatives. The mean levels on internal causality for the illegal drugs were from 5.30 (SD = 1.51) (cocaine) to 5.74 (SD = 1.42) (amphetamine). The same ranking order, but in a reverse order, was observed for *external causality*. However, the mean level for all addictions was lower than for internal causality. Thus, the respondents mainly located the cause of the addictions inside the person.

Insert table 1 here

The mean rating level of *personal responsibility* for all addictions was 5.40 (SD = 1.49), and the highest rating level was observed for snus and smoking, followed by gambling, cannabis, and cocaine, while the lowest level was observed for sedatives. In other words, people assigned a relatively high level of personal responsibility for all addictions except for the addiction to sedatives.

For the emotional reaction *sympathy,* the mean rating level was 3.15 (SD = 1.80), and the highest level was observed for sedatives, followed by alcohol, heroin and cocaine, and the lowest levels were observed for gambling, smoking, and in particular snus. When it comes to *anger*, the variation among the various addictive states was smaller than for other variables, and the mean rating level was lower (M = 2.42, SD = 1.64). The highest level was observed for cocaine, cannabis, and alcohol, while the lowest levels were observed for snus and sedatives. The above ratings suggest that the addictions did not elicit very strong emotional reactions.

The level of *deservingness of help* varied considerably among the addictive states, with a mean rating level of 4.84 (SD = 1.68). The highest levels were observed for sedatives, heroin, cocaine and alcohol, while smoking and in particular snus received the lowest ratings for help. Given the seven-point scale, the level of deservingness of help seemed to be quite high for most of the addictions.

Correlation Patterns

The correlations among the variables of the model were strikingly similar across the various addictive states both in terms of magnitude and directions. To provide a simplified

picture we present the average correlations (i.e., across addictive states) between the variables (See Table 2). Help correlated most strongly with sympathy, so that the higher level of sympathy, the higher level of helping. The relation between help and anger was weak. As expected, help correlated negatively with responsibility and internal causality, but positively with external causality. As to associations among the independent variables, the directions of all zero-order correlations were consistent with the model and the past research as outlined in the introduction.

Insert table 2

Path Models.

The SEM-analyses for the nine addictions (see Figure 2) were largely consistent with the proposed model in Figure 1. First, perceptions of personal and external causality predicted perceptions of responsibility directly. Internal causality had a relatively strong direct effect on responsibility (betas from .39 to .59), while that of external causality was weak (betas from -.02 to -.14). Testing for modifications resulted in some weak additional associations at this stage. External causality had weak direct effects on deservingness of help in some of the models, and there were direct effects from external causality to anger and/or sympathy in most of the models.

Second, perceptions of responsibility influenced perceptions of sympathy (betas from -.26 to -.42) and anger (betas from - .04 to .27). Testing for modifications provided an additional path in two of the models: perceptions of responsibility had a direct effect on help

for smoking and snus, unmediated by the two moral emotions. Finally, perceived sympathy influenced help more strongly than anger for all addictions in terms of betas from .42 to .55 as compared to betas from .01 to -.07, i.e. the effects of perceived anger were negligible.

We also checked for interactions with age. Thus for each substance, interactions with age (20-49 years versus 50-69 years) was examined in a series of multigroup models. Out of 92 interactions examined, ten proved significant (p<.05). They were generally small, and no consistent pattern across substances was found.

Explained variance for the outcome variable deservingness of help was highest for sedatives (R^2 = .37), followed by heroin (R^2 = .32), while the lowest figure was obtained for snus (R^2 = .25) and smoking (R^2 = .23). The relatively strong associations between personal causality and responsibility, between responsibility and sympathy, and between sympathy and help resulted in a significant indirect effect for personal causality through responsibility and sympathy on help for all addictions. The significance of this path was tested in all models (Sobel's approximate test). Significance (p<.001) was obtained for all addictions.

Insert figure 2 here

All analyses above relied on variation in judgments within each addiction. A more general test of the model, which also would exploit variance between addictions, was therefore established by selecting one single type of addiction quasi-randomly for each respondent[1]. Then the judgments corresponding to the selected addiction were used in a new SEM-analysis (see figure 3). The results of the model were largely consistent with the results from the individual analyses, but the aforementioned unexpected direct effects of external causation on the components sympathy, anger and help were even more pronounced. We are not able to provide a good explanation for these effects. However, all other effects were consistent with the proposed model presented in Figure 1. The indirect effect of internal causation to helping judgments was -.10, p < .001.

Insert figure 3 here.

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[1] Based on the rank of case numbers provided by the agency that collected the data. The basic idea of this analysis was provided by one of the reviewers.

Discussion

In terms of the first descriptive objective of the current study, the mean rating levels of the various model components, the respondents mainly located the cause of the addictions inside the person, and they mainly attributed the total responsibility for the problem to the individual. In general, addicted persons did not receive a high mean level of sympathy, indeed the mean level of perceived sympathy for all addictions were clearly below the midpoint of the scale. Neither did addicted persons elicit much anger. Despite the high level of internal causality and responsibility, and the low level of sympathy, people reported a high level of deservingness of help and assistance. This was the crude picture, but there were substantial variations among the nine addictions.

More specifically, snus, smoking and to some extent gambling could be classified as addictions considered to be caused by their owners, subject to their own responsibility, eliciting a low level of sympathy and a relatively low level of deservingness of help. To put in everyday language: "It's their own fault, we don't like them, and they have to take care of themselves". Blomquist (2009) identified the same pattern based on the two responsibility ratings (onset and solution) for the three addictions above. People were rated as responsible for the onset as well as the solution to these addictions and thus subject to the moral model of helping. Accordingly, this category of addictions may be denoted moral concerns or bad habits. The present study adds two dimensions to the Brickman model (Brickman et al., 1982), namely sympathy and helping, thus strengthening the picture of snus, smoking and gambling as bad activities and the performers as "sinners" who should take care of themselves (cf. Weiner, 1991). Thus, the validity of the moral model as proposed by Brickman as a way of reaction towards these addictions was supported. By this account those addicted to snus, smoking and gambling are considered by lay perceivers to be lazy but capable of recovering

provided they receive enough motivation, e.g., through encouragement by others or other means of external help.

At the other pole of the scale, addicts to sedatives represent the counterpart to the above bad habits. Those addicted to sedatives were assigned the lowest levels of internal causality, and the lowest level of personal responsibility. They elicited a higher level of sympathy, a low level of anger, and a high level of deservingness of help. In everyday language: "It is not their own fault (everybody can get a disease), we don't dislike them (they are more like us), and they need and should get help (next time, it is my turn)".

In a big middle category we find the hard drugs including alcohol (cannabis seems to be less prototypical than the others). Being in the middle implies that these drugs do not fit so neatly into one of the Brickman "high/low" models (Brickman et al.,1982). However, since the levels of assigned responsibility and internal causality were relatively high (i.e., responsible for the onset) and the level of deservingness of help was relatively high (i.e., not responsible for the solution) for these addictions, they are closer to the enlightenment model than the compensatory model. This means that lay perceivers implicitly assume that addicts to hard drugs and alcohol are powerless victims who are not able to take care of themselves. The solution for the addicted is to adopt this negative view of themselves and fully submit to the discipline of a treatment program in order to recover to a full and worthwhile life. The finding that the compensatory model (meaning little responsibility for onset, but responsibility for solution) were endorsed by relatively few respondents, is in line with the findings by Blomquist (2009). He noted that this is unfortunate considering that "self-change" is the most common pathway to recovery from addictions. The compensatory model guarantees assistance and help to the victims of addiction without blaming the victims for their misfortune.

Predicting Deservingness of Help

In terms of the second objective, prediction of help, the results from the SEM-analyses by and large indicated empirical support to the adopted variant of Weiner's mediation model. Inferences of responsibility were an effective mediator of the effect of causal attributions on moral emotions, and moral emotions mediated the effect of responsibility on deservingess of help. As predicted, sympathy in particular turned out to exert the final strong impetus on help. Additional support for the proposed mediation model was provided by the pervasive indirect pathway running through the model for all addictions starting by the relatively strong effect of attributions of personal causation on responsibility through sympathy on help. There were some exceptions to the basic mediation model, but the prevailing attributional pattern predicted by the model was relatively stable across addictions.

Weiner (2006) made a distinction between two types of help giving, namely willingness to provide personal help and help giving as welfare assistance or public spending. The latter represents a case of impersonal help giving which has more to do with how much benefit society should provide for the group in question. Thus willingness to provide welfare benefits may well be less personally involving than willingness to provide personal help. Zucker & Weiner (1993) found that willingness to provide personal help were directly predicted by both sympathy and anger and reasoned that moral emotions guide help giving which are personally involving. On the other hand, when it came to provision of welfare benefits, i.e. impersonal help giving, judgments of help giving were determined directly by sympathy and responsibility as well as political ideology, while anger had only a weak or no direct impact (Zucker & Weiner, 1993). The finding of the present study that anger by and large had negligible effects on help is consistent with the idea that impersonal help giving should evoke less anger. On the other hand, we found that the effect of judgment of responsibility on deservingness of help was fully accounted for by judgments of sympathy for

most of the nine addictions. However, for snus and smoking, deservingness of help for such addicts was, in addition to the effect through sympathy judgments, also determined directly by responsibility. Thus, both dispassionate considerations about whether or not the addict should be held responsible for their misfortune, and involvement in their suffering underlies the ultimate decision to provide help for persons addicted to tobacco products. For other types of addictions this decision boils in the final stage down to the generation of sympathy. This does certainly not preclude reasoned considerations by the lay perceiver, as the generation of sympathy is largely based on judgments of causation and responsibility.

Implications for Interventions

The path models presented in the current article may provide the basis for action if one wants to increase willingness to provide help to addicted persons. Judged from the relative rating levels, the potential for increasing the level of help was highest for persons addicted to snus and smoking, and lower for sedatives, heroin, cocaine and alcohol. The results suggest that this can be achieved through increasing the level of sympathy towards the suffering addicted victim. The level of sympathy for addicted persons was not very high in the Norwegian population, except for persons addicted to sedatives, where the level was below the 1 to 7 scale mid-point. According to the model employed in the present research, the level of sympathy may be raised by lowering the level of personal responsibility for becoming addicted, given the relatively high ratings of personal responsibility. The most efficient way to decrease level of responsibility is likely to provide lay perceivers with new causal information regarding the particular addiction. Given the high established level of internal causality for most of the addictions, one option could be to decrease the belief that addictions arise from personal causes. In this context, it is timely to sound a warning against lowering the level of personal responsibility as well as increasing the reliance on help/treatment. Considering the

fact that "self-change" is the most common pathway out of a number of addictions (see

Klingemann & Sobell, 2007 and Blomquist, 2009 for a more elaborate discussion on this

topic), such influence on public opinion and the addicted might even be detrimental.

Limitations

In terms of limitations of the current study it should be noted that the sample may not

be fully representative of adult Norwegians. This suggests that one should be careful not to

generalize the absolute rating levels of the variables contained in the attribution model.

Nevertheless, one may have more confidence in comparisons of rating levels between

addictions, and the attributional pattern of associations depicted in the SEM-analyses seems to

appear across a range of settings (see Weiner, 1995; 2006). A second possible shortcoming is

the use of only one item to measure the theoretical concepts of the model. This may have

contributed to low reliability. However, using one-item measures is the standard procedure in

several past studies where the associations specified by the model have been supported (see

Weiner, 1995; 2006 for review). The use of several items would presumably have increased

the reliability and thus tended to produce stronger associations.

A third point worthy of commenting upon, is that the postulated temporal order in

terms of thinking, feeling and action is not invariant; thus, the emotional states may influence

cognitions about responsibilities and causality, and cognitions may partly bypass emotions

and codetermine help with emotions as we have seen for snus and smoking. Another

possibility is that the two emotions affect each other reciprocally, but as judged from the

empirical analyses this was not a serious problem.

A fourth issue to comment on is the additional variance to account for, thus the

explained variance ranged from .23 (smoking) to .39 (sedatives). One potential influential

source, which is more proximal than demographics and amenable to change, is political

orientation which in past research has been shown to add to the explanation of help giving beyond the effects of causal beliefs, inferences of responsibility and moral emotions. For example, Zucker & Weiner (1993) found that a measure of conservatism predicted welfare spending to the poor beyond causal beliefs, inferences of responsibility and moral emotions, but not for personal help. Similarly, Skitka (1999) found that political orientation predicted a measure of perceived deservingness beyond responsibility and emotional states. In a recent study, Halkjelsvik & Rise (2012) found that individual differences in Social Dominance Orientation as well as Right-Wing Authoritarianism predicted attitudes towards both public funding and personal help to addicted persons beyond the thinking-feeling sequence.

In conclusion, the thinking-feeling-action mediation model was by and large supported for all addictions. In spite of this consistency of the models across addictions, the absolute ratings varied widely across addictions and model components. Thus the crude picture across addictions indicated that the causes of addictions are mainly located inside the addicts, addicts are mainly held personally responsible for it, people do not like them very much, but are, in spite of this , willing to spend a lot of welfare assistance so that they get better life or get rid of their addictive state. Addiction to snus and sedatives represented the two most opposite addictions fitting into the moral ("sinners") and medical ("sick") model, respectively.

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Table 1. Means (and SD) for the various beliefs for the nine addictions (scale 1-7)

	Internal causality	External causality	Responsi-bility	Symp-athy	Anger	Help
Cocaine	5.30 (1.51)	4.17 (1.69)	5.38 (1.49)	3.77 (1.81)	2.69 (1.70)	5.35 (1.54)
Cannabis	5.72 (1.45)	4.06 (1.77)	5.65 (1.42)	3.33 (1.77)	2.68 (1.75)	4.77 (1.75)
Alcohol	5.66 (1.34)	4.24 (1.66)	5.26 (1.49)	3.90 (1.72)	2.68 (1.70)	5.29 (1.51)
Gambling	6.07 (1.25)	3.77 (1.96)	5.69 (1.41)	3.11 (1.77)	2.59 (1.75)	4.69 (1.75)
Smoking	6.13 (1.25)	3.87 (1.99)	5.95 (1.37)	2.92 (1.86)	2.32 (1.70)	4.11 (1.86)
Amphetamine	5.74 (1.42)	4.28 (1.90)	5.32 (1.54)	3.47 (1.86)	2.52 (1.67)	5.06 (1.67)
Sedatives	4.77 (1.67)	4.76 (1.67)	4.12 (1.66)	4.43 (1.66)	2.00 (1.37)	5.49 (1.44)
Snus	6.35 (1.11)	3.23 (2.03)	6.11 (1.34)	2.58 (1.75)	1.90 (1.39)	3.44 (1.95)
Heroin	5.57 (1.55)	4.55 (1.92)	5.08 (1.69)	3.81 (1.98)	2.42 (1.69)	5.39 (1.68)

Table 2. Average correlations for the nine addictions among the various beliefs

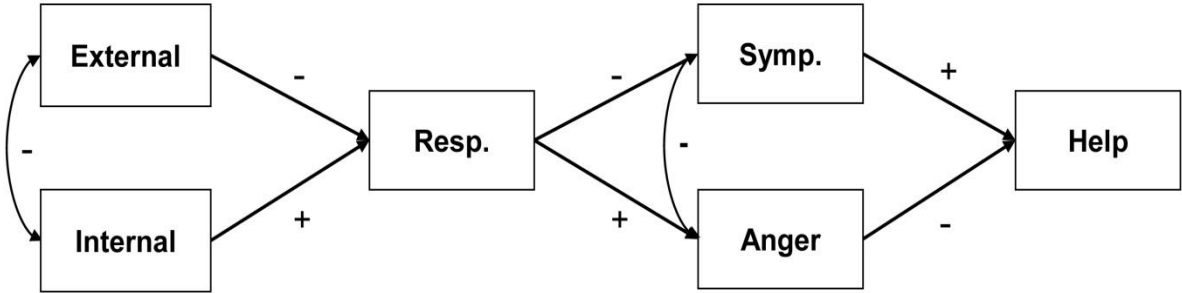|	Internal causality	External causality	Responsibility	Sympathy	Anger
External causality	-.28 (-.06/-.38)				
Responsi-bility	.55 (.40/.61)	-.25 (-.17/-.35)			
Sympathy	-.24 (-.12/35)	.22 (.14/.32)	.37 (-.22/-.47)		
Anger	.08 (-.06/14)	.02 (-.05/.13)	.16 (-.04/.25)	-.08 (.05/-.14)	
Help	-.15 (-.05/-.27)	.20 (.16/.28)	-.25 (-.11/-.30)	.52 (.46/.60)	-.07 (.01/-.14)

Figure 1. Core model of attributions, responsibility, emotional reactions and help, based on Weiner (1995, 2006) and Zucker & Weiner (1993).
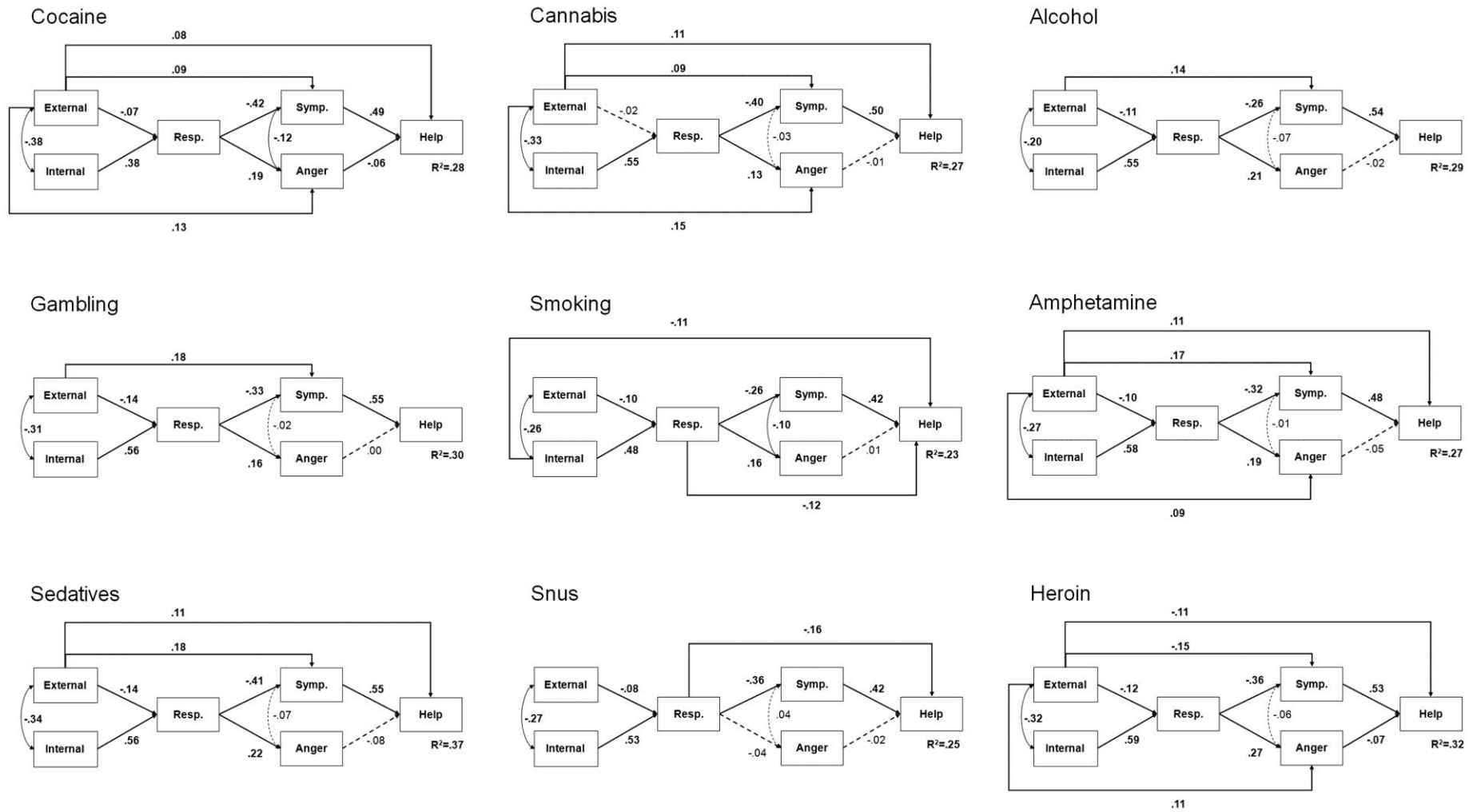
Figure 2. Models of relations between causation, responsibility, emotional reactions, and deservingness of help for nine addictions. CFIs >. 95 and RMSEAs < .055
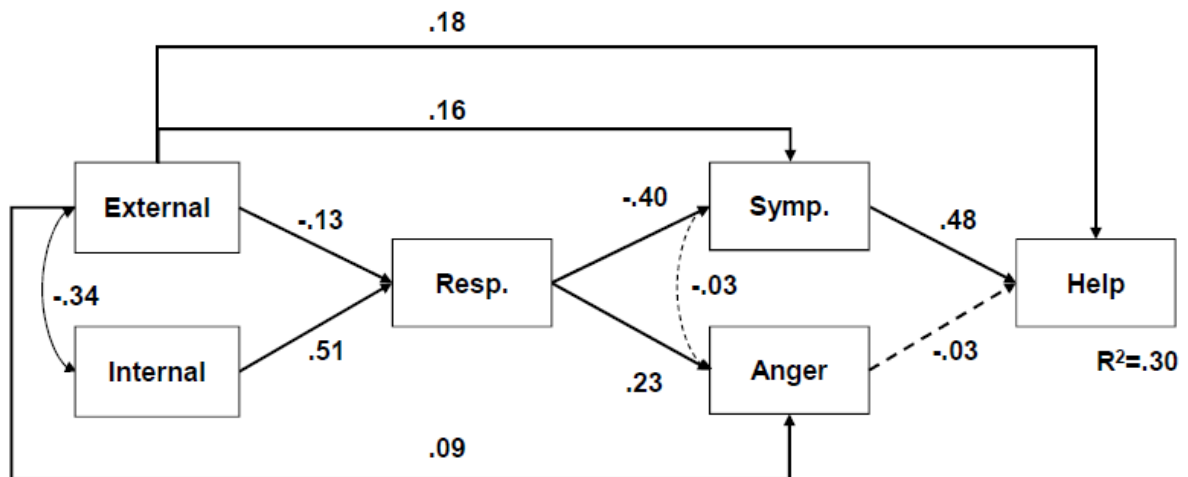
Figure 3. Quasi-random selection of cases across addiction types. $N = 1008$; $\chi^2 = 7.753$, d.f. = 4, $p > .01$; CFI = .995, RMSEA = .031.