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Preventing Relapse into Drug Crime through Motivational Talks at a Drug Scene in Stockholm

A Randomised Controlled Trial of a Law Enforcement Tactic

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Abstract
A randomised controlled trial was developed and implemented together with police officers working to combat drug crime at an open drug scene in Stockholm. The aim was to evaluate a method called *motivational talks*, which are held by police officers to encourage drug crime suspects to seek help. Relapse into drug crime was compared between the control group and the experimental group to determine whether the treatment, i.e., the motivational talk, had an effect. The study shows that motivational talks had a small but non-significant impact on relapse into drug crime after nine months, but the effect had disappeared at the second follow-up. Motivational talks might still have other effects on the individual or the police. Studying the use of repeated treatment might be a way of furthering the research on the effect of motivational talks.

Keywords
Randomised controlled trials (RCT), police, open drug scene, motivational interviews (MI)

1. Introduction

Cities all over the world deal with open drug scenes, where drug use and the drug trade create problems for both the community and the police (EMCDDA, 2015; McNeil et al., 2014). In tackling these problems, police agencies have adopted both punitive and harm reduction strategies, sometimes in combination (Olsen, 2017). There has been a long, ongoing debate both in Sweden and abroad as to whether police involvement with abusers actually helps these individuals, or whether the government is investing too much money in such investigations, with few or possibly negative effects. It has been shown, however, that society saves a great deal of money when addicts actually enter rehab and stop abusing (Nilsson & Wadeskog, 2006).

1.1 Swedish drug policy and randomised controlled trials (RCT)

The Swedish police have a legal responsibility to identify addicts and guide them to relevant resources within healthcare or social services. Historically, this responsibility emerged as part of the country's restrictive drug policies, with the aim of identifying new addicts (BRÅ, 2000). In a study exploring Swedish police officers' (and others') understanding of the dual concepts of help and control, Skrinjar and Johansson (2001) found that police officers were highly committed to providing abusers with assistance and care. One tactic that is used to establish links to the health care sector, as a means of encouraging the individuals linked to drug crime to seek help, is the use of a form of motivational interviews, although these are not as highly structured as those employed in the healthcare sector. But is this tactic effective, or is it a waste of time? Do these talks actually prevent relapse into drug crimes?

According to Sherman (2013), 'Evidence-based policing' involves establishing which actions and strategies meet policing goals in the most cost-effective manner. Well-conducted randomised controlled trials (RCTs) are an ideal means of testing theories of crime and crime prevention (Sherman, 2010). A large number of RCTs have been conducted in the field of police research and there has been a significant increase in the number of the RCTs over time, as well as in the diversity of subjects examined (Neyroud, 2017).

1.2 Motivational talks

Motivational interviewing (MI) is an evidence-based method used in healthcare institutions, among other settings, to motivate individuals to stop unhealthy drinking or other harmful behaviours (Miller & Rollnick, 2012). MI is based on ideas from learning and social psychology and can be described as a collaborative conversation style focused on increasing the individual's own motivation to change (Miller & Rollnick, 2012). MI has been found to be significantly more effective than no treatment but equal to other treatments (Foxcroft et al., 2016; Lundahl & Burke, 2009).

The MI method has become established throughout the Swedish healthcare system, as well as in social services and correctional care. Within the Swedish police, MI has also been used by different departments and projects with the purpose of motivating individuals to seek help. In a method known as SMADIT,[1] the police work in collaboration with the health care sector, and health professionals conduct motivational interviews with individuals arrested for driving under the influence. Evaluations show positive results in terms of behavioural changes in the traffic offenders, but they also show that police officers lack knowledge of the MI technique and have suggested that officers should be given training (Gustafsson et al., 2013; Trafikverket, 2011). In 2012, an initiative focused on lifestyle criminals was implemented in which the police collaborated with correctional officers and social workers from the municipality. In this project, the police held MIs with the goal of influencing individuals to change their lifestyle. The evaluation clearly showed that the MIs used by officers did not have a fixed content and that there was no documentation of the MIs that had been conducted (Andersson & Nordh, 2014). MUMIN is an evidence-based method used by the Stockholm police when dealing with individuals under the age of 20 who are arrested for drug crime or identified as manifesting risk behaviour.[2] One cornerstone of the

1. SMADIT (Samverkan Mot Alkohol och Droger I Trafiken); English: Collaboration against alcohol and drugs in traffic.
2. MUMIN (Maria Ungdom Motiverande Interventioner); English: Maria Ungdom Motivation Interventions. "Maria Ungdom" is the name of the health care institution.

MUMIN method is motivational interviews with young drug users. Evaluations suggest that the work of the police in introducing drug users to health care has positive effects (Sinadinovic & Wahlgren, 2007).

Another similar project, known as LOTS,[3] was initiated in 2005 with a focus on heavy drug users. Specialised nurses were appointed to guide abusers through health care institutions and processes. Police officers were trained in the MI method and how to connect abusers to these appointed nurses. Evaluations conducted by a hospital research team indicated that repeated MI led abusers to seek rehab treatment, and the method was found to produce positive effects in getting abusers off the street (Palmstierna & Winerdal, 2006).

It thus appears that, in the context of Swedish police practice, MI has been included in a number of projects that have produced positive results in terms of introducing individuals to treatment. The authors' own observations have shown that, since the implementation of the regional projects described above, training in MI is no longer being conducted. It is also clear that the use of MI in its current form is not being evaluated.

Since the majority of police work is governed by legislation and regulations, there are limits to the types of experiments that may be conducted in the context of police practice. Motivational interviews, which might perhaps more appropriately be labelled *motivational talks* in the context of their use in police practice, constitute an example of what are referred to as voluntary methods. Such voluntary methods and tactics can be used once officers have completed their mandatory tasks. The motivational talk has not been properly integrated into police practice, and the use of the method in Swedish police practice remains ill-defined, unstandardised and undocumented. This lack of well-conducted implementation and context adaptation of methods is not unique for the MI method in policing. Public sectors around the world seem to have the same kind of 'isomorphic mimicry' issues, where methods are adapted to different practices and often lose their original evaluated form (DiMaggio & Powell, 1983; Giblin, 2006). One way of advancing police performance is to measure the effects of these talks to understand what works.

1.3 This study

This study was designed and carried out in collaboration with a local police department and a regional evaluation and analysis department within the Stockholm police department as a development project to evaluate the existing practice of motivational talks. A well-known police commissioner within drug enforcement working at the local police department and a police detective undertaking university studies formed the design together with the police officers.[4]

In order to evaluate the effects of motivational talks, a randomised controlled experiment (RCT) was designed, in which drug crime suspects encountered by the police were randomised into an experimental group and an equivalent control group. The members of the experimental group were then given motivational talks, while the members of the control group were not. The objective was to create a basis for comparing rates of drug reoffending between the two groups, while excluding the effects of all other variables, and to address the question: do motivational talks given by police officers to drug abusers have any positive effects on relapse into drug crime?

3. LOTS is a Swedish term for providing guidance, acting as a link, which was also the name of the project. The term referred to the nurses who were guiding the abusers through the health care processes.
4. At this time, the author of this study (the police detective) was undertaking an advanced course in criminology, later included in a Ph.D. which was completed in 2022.

If evidence about the effects of motivational talks is established, it will be possible for the police to take action and be more effective. If an experiment is possible to use as an evaluation method within policing, more experiments could be carried out to evaluate other tools and interventions. If completed successfully, an experiment should test the theoretical hypothesis, eliminate as many competing explanations as possible and show if one treatment is more cost effective than others (Sherman, 2010). In the next section, the central hypothesis for this study will be explained, followed by its contextual limitations.

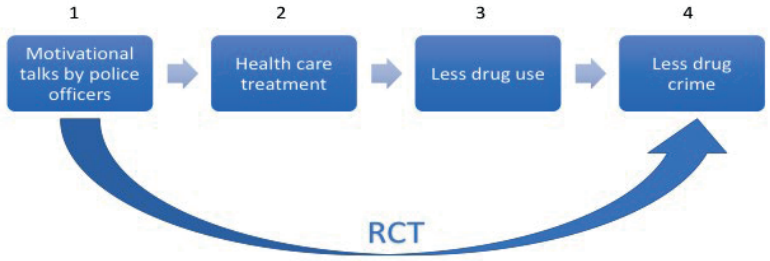

Figure 1. The treatment measure (motivational talks) and the hypothetical process underlying the use of the tactic.

If motivational talks (1) are effective, they will result in individuals seeking health care treatment (2). If this treatment is effective, it will lead to less drug use (3), which will in turn lead to less drug crime (4). In this case, the RCT measures the effects of the motivational talk (1) on relapse into drug crime (4). The RCT does not measure the two other steps in the process.

In this experiment, the plan was for officers on the street to randomise their use of motivational talks in order to create two groups and to then measure relapse into drug offending to see whether the treatment group would behave differently from the other group, thus showing whether motivational talks have any effect on the risk of continued drug offending.

1.4 Setting, limitations and focus

The inner-city area known as *Plattan* is Sweden's biggest open drug scene,[5] and may be viewed as a "hot spot" for drug crime (Weisburd & Green, 1995; Magnusson, 2020a). The location was chosen as the setting for the experiment due to its unique position as a place for drug sales and high-density drug abuse. This drug scene has persisted since 1965, covers a large geographical area and is well-known as *the* drug selling point in Sweden. The place is interesting because it represents an extreme environment for police work and is also the place in which different drug enforcement tactics, including motivational talks, are probably used most frequently. Sites characterised by extreme conditions generate specific problems, processes and contexts, however, and the location cannot be compared to or serve as a basis for generalising to other locations.

The experiment did not include data from the health care or social services sectors, due to confidentiality regulations, and the experiences of arrested individuals were not registered, which means that the experiment cannot measure the overall effects of motivational talks for the individuals concerned. The results include a brief record of transportations to

5. In this article, the definition of an open drug scene is a geographical, enduring place where the use and trade of drugs is public and perceived as problematic by the authorities and/or public (Magnusson 2020a).

health support. As the outcome of the motivational talk is to motivate change and to refer drug abusers to health support, the transportations to health care interventions conducted during these weeks were also counted. The focus, however, is directed at the drug offences registered by police officers, and motivational talks are viewed in terms of their effectiveness as a method for encouraging abusers to seek health care, for example, in the form of rehabilitation.

The design required officers to interact with the suspects as they would normally until they had completed their questioning. The inability of the officers on the ground to see whether individuals had already been randomised to either the experimental or control group meant that individuals might be given repeated motivational talks over the course of the experiment period or might be first randomised to the control group and then to the experimental group if they were apprehended again. The design meant that it would only be possible to identify individuals who appeared more than once in the data when personal identity numbers were subsequently added to the data set (in order to be able to measure the relapses). At this point, individuals could be separated on the basis of whether they had been given the treatment once or more than once.

Statistics on drug offences are something of a special case, since these offences are primarily detected by police officers in the context of their work rather than being reported by members of the public (Holgersson & Knutsson, 2011). This means that the number of drug offences registered in police statistics is correlated with the amount of time that the police invest in drug enforcement activities (BRÅ, 2018). This also affects the measures employed in this experiment, since official statistics are employed as the measure of relapse into drug crime. This measure thus identifies whether a given drug user becomes a suspect again, rather than whether the individual relapses into drug use, for which self-report interviews might constitute a better data collection tool. The correlation examined in the study is thus that between police behaviour towards reported suspects and the level of relapse into drug offending.

According to Sherman (2010), the success of an RCT is dependent on the ability of the experiment to exclude possible alternative explanations. If the control and experiment groups differ substantially in their level of relapse into drug offences, we may assume that the difference is explained by the effects of the motivational talks since the RCT excludes alternative explanations.

The following section outlines the implementation of the RCT in order to describe the considerations and methodological steps taken in the research process.

2. Methodological steps in the RCT implementation

To begin with, the hypothesis was discussed with the deputy detective responsible for drug enforcement in central Stockholm. The question of the suitability of the setting – in terms of existing legislation, regulations and guidelines – and whether these would allow for the conduct of the planned experiment, was discussed and verified with the local police chief.

2.1 Collecting resources and creating a field group

The police department of the Stockholm region was asked to provide officers who would participate in the experiment from an existing police operation targeting the Plattan drug scene. The chief of the local police department was informed of the study and approved the participation of a total of 25 officers for a period of eight weeks. Five of the 25 officers were group chiefs responsible for each of the five groups that worked different shifts.

Sherman (2010) discusses the context in which experimental criminologists find themselves. The person who assumes responsibility for the experiment has the crucial role of ensuring that errors are minimised. If there is too great a distance between this individual and the practice being examined, misinterpretations become more likely. The individual who is responsible for the research should not manage the practical implementation of the experiment, since this role is better suited to someone who is responsible for concrete police operations (Sherman, 2010).

In the current experiment, the researcher only visited the setting, Plattan, prior to the experiment in order to examine the location's geography and characteristics. The individual who was operationally responsible for the experiment participated at the scene and worked together with the participating officers. In Sherman's (2010) terminology, this individual served as the experiment's "field coordinator".

The field coordinator was a drug enforcement specialist and had a long history of work as a drug detective at the Plattan location. He also worked together with the researcher to develop the design of the experiment. The work started with the development of a strategy for how to communicate and develop the experimental design, and by taking steps to develop a sense of common purpose among the participating officers and the research team. Plans were made for an introductory meeting, an introduction week, a progress meeting at the mid-point of the experiment and a debriefing day, with time planned for the participating officers to complete a survey about their experiences of the experiment.

2.2 Introductory meeting and introduction week

The first meeting with the officers was used to introduce the background and concept of the experiment. Presentations were given on the problems associated with the geographical location of Plattan, the policies underlying the development of Swedish drug legislation and the problems perceived by the police in relation to working at the location and with addicts in the area. The researcher, the field coordinator and the officers also introduced themselves to one another. All questions relating to the planned experiment were answered, and any questions on working hours and planning were also addressed.

To motivate and inspire the officers, but also to ensure that levels of knowledge were as similar as possible within the group, a week of education, discussions, lectures and a field exercise were organised. Over the course of this week, lectures were held on heroin cases, surveillance techniques, evidence evaluation, drug legislation and strategic considerations relating to drug law enforcement. The lectures were held by experts from the police department. Prior to this introduction week, the researcher and the field coordinator reviewed all police routines in the field of enforcement work relating to drug dealing and drug use. The objective was both to learn the processes and to produce templates to assist the officers, particularly with regard to the work of writing and reporting that follows drug interventions. These templates were presented to the officers and subsequently discussed, after which adjustments were made.

A decision was taken as to how reports were to be written. There was also a discussion of the process of randomisation, with the goal being to identify the most effortless method possible. The use of dice was voted down, and alternative ideas were presented and voted on. The choice of method was restricted by the requirement that the work of the participating officers should not deviate from their regular line of activity in the field, so that the situation surrounding the experiment did not deviate from the context in which they usually conducted their work.

In the introduction week, a brief presentation of motivational interviews was given by the

field coordinator and followed by a discussion with the officers. Police officers agreed on a set of minimal criteria for what would constitute the content of a motivational talk and how they would behave in connection with these talks. They agreed to use open questions and listen to the individuals with whom they would speak, confirming, reflecting and summarising the content of what was said during the talks to the individual with empathy and honesty in order to create motivation. The talk also included an offer of voluntary transportation to health care. How they would work to detect drug offences was left up to the officers. However, they all received a lecture on questioning techniques and relevant legislation, in order to ensure that they had the same level of knowledge about these issues and the same ability to undertake the steps required by the process of drug law enforcement. Some of the officers had many years of experience in drug enforcement, while others had almost none. The officers were encouraged to work as they normally would, and once they had conducted all the steps required by law, by completing a checklist, it would be possible to initiate randomisation.

After discussing the randomisation of motivational talks, it was decided by the participants to make use of the precise time of day at which they completed their questioning of the suspect, which was one of the items in the checklist. If the questioning was concluded at an even number of minutes past the hour, a motivational talk would be given, and the case would be assigned to the experimental group. If the questioning was completed at an odd number of minutes past the hour, the officer would say thank you and goodbye, and the case would be assigned to the control group.

In order to create a real randomised selection to experimental and control groups, the randomisation must be as independent and unpredictable as possible (Sherman, 2010). In this case, holding the questioning and then registering the exact time at which it was concluded, but now with the consequence that the number of minutes past the hour would determine whether or not a motivational talk would be given, could only be impacted if the police officers themselves chose to manipulate their registration of the time at which the questioning was concluded.

The participating officers also discussed which words should be used to address those individuals who would not receive the motivational talk, in order to ensure that every individual was treated in the same way. It was important for the officers to feel comfortable with the words they used so that their behaviour, and their treatment of the individuals concerned, would not appear to be affected.

2.3 Deciding on the protocol

In order to create a well-planned, transparent experiment that meets good design requirements and contains complete information regarding what has been done, a checklist of the elements required to produce a good report of the project should be followed (Sherman, 2010). In the current experiment, a checklist, or protocol, was produced to facilitate the work of the officers on the street while at the same time clarifying the exclusion criteria and the decision-making process in a way that was transparent and easy for others to follow. The protocol was formulated to meet the transparency requirements described by Sherman and to describe all the details that were taken into consideration. This checklist (Figure 2) is then connected to the overall CONSORT-diagram (Figure 3) showing the completed RCT.

When officers approach the area around Plattan in Stockholm, according to the code of judicial procedure, a reasonable suspicion of crime is necessary in order for officers to intervene. Having established a suspicion of drug possession or drug use, the suspect is then confronted, and procedure requires that the individual be searched and questioned. Since the

nature of interventions, offences, police officers and suspects vary, there are many different types of cases, but the steps that officers are required to take are all based on following the same laws, regulations and routines. Once these steps had been taken, the officers were to check whether the case met one of a number of criteria that had been specified for excluding cases from the study (such as being a minor, having grounds for making an arrest, language limitations). If the case did not meet any of the exclusion criteria, the officer would then randomly assign the case either to the experimental group (giving a motivational talk) or to the control group (allowing the suspect to leave the scene).

In order to avoiding distorted results as a result of retrospectively removing cases from the randomised groups, consideration has to be given to how cases should be collected prior to randomisation. This is best done by planning and creating protocols (Sherman, 2010). The checklist used by the participating officers to exclude individuals who were not suitable for inclusion in the experiment was formulated during the introduction week.

Checklist prior to randomisation:	Clarification	Exclusion base used in consort diagram (see Fig. 3)
Drug offenses, use or possession	If only other offenses, exclude[1]	A
Not deprived of liberty	If deprived of liberty, arrested, taken in for questioning, wanted for crimes etc exclude	B
Interrogation at the crime scene	If interrogation is not held due to intoxication, language limitations etc. exclude.	C
Aged over 20 years	If younger than 20, use MUMIN exclude	D
Initiated by geographic location in the area.	If initiated in other places exclude.	E
Assessed as intervention with non-urgent need of other efforts.	If the person is in need of urgent care, help or otherwise unsuitable randomisation should not occur, for example in the case of first-time offenders.	F

Figure 2. Checklist of exclusion criteria.

[1] The study's data was focused on establishing relapse into drug offenses, not into other forms of offending. There is disagreement as to whether e.g. acquisitive crime may be drug-related in the sense that it may also be reduced by working to combat drug abuse (Carpentier, 2007). This delimitation is also based on the fact that the motivational interviewing tool is mainly used by the police in their work on the street with drug abusers.

The checklist describes when and which cases could be randomised. The checklist was formulated together with the participating officers, staying as close as possible to normal procedures in order to ensure that the inclusion/exclusion decision could be smoothly incorporated into their daily routine.

2.4 Initiating and maintaining the experiment

During the experiment, the field coordinator was involved in the practice on the street, following the participating officers and the randomisation process in order to establish

whether there were any problems, uncertainties or obstacles that might disrupt the conduct of the experiment. During the eight weeks of the experiment, the participating officers were informed via email about the progress of the work, and any questions that participating officers asked were answered and emailed to everyone to provide clarification and ensure that all participants had the same information.

Another template was created to make it easy for participating officers to document their cases and for the researcher to track the cases that were included. The template was created in consultation with the chief of the drug investigation team and the police station chief, who is responsible for the first decision made in all cases registered at the station. The participating officers also submitted a daily report, in which they collated all the day's cases and registered offence reports, and described the situation at the drug scene. This daily report was supplied to responsible chiefs at the police department and was used as a daily resource by the researcher. The police reports were read from these daily summaries and number-coded from 1 to 236. Where cases had been excluded from the experiment, information was provided regarding the reason for their exclusion.

All included cases were assigned to either the control group or the experimental group, and were grouped according to the suspect's age (under or over 30) and gender. These two variables were included so that the groups could be analysed from a program integrity perspective. During the experiment, the researcher received a number of text messages and emails regarding cases that officers had forgotten to include in their daily reports. In order to avoid mistakes, a search word was entered in the police reports, enabling a search in the police data system to locate all randomised cases.

2.5 Obtaining cases and randomly assigning the treatment

In this experiment, it was the officers who collected the cases and conducted the randomisation process for the study. The number of cases collected was restricted only by the pace at which the officers worked and the time frame for the experiment. It was important not to miss cases that could have been included in the experiment. The number and the characteristics of the cases collected needed to be representative of the cases that the police would normally work with.

In order to estimate the number of cases that would be included in the experiment during the eight-week period, statistics from the same area were compared for the corresponding eight weeks in 2014 and 2015. It was found that police operations during the two previous years had produced a similar amount of registered drug offences, which was interpreted as representing the normal level of activity during similar operations. Police operations were conducted during the corresponding eight-week period in these previous years, but it was not possible to specify the exact form and goals of these operations as a result of limitations in the operational reporting. The working hours in this experiment covered most hours of the day, seven days per week. These working hours were representative of normal working time when conducting standard operations. All participating officers worked within the confines of their regular hours and in line with normal safety routines and legal restrictions that define their practice.

Neyroud (2017) suggests the use of Intention to Treat (ITT) analysis in random assignment studies. According to the ITT principle, subjects incorrectly randomised multiple times in close succession should be analysed in the treatment group assigned during the first randomisation, and the second randomisation can be disregarded (Yelland et al., 2015; Neyroud, 2017). This principle is accounted for in the analysis in this study.

2.6 Delivering and measuring treatment

Differences in treatment and in the composition of the experimental and control groups weaken the experiment. Using checklists can produce random assignment and a structure in the assigning to treatment, but it is more difficult to ensure consequent treatment by means of protocols and rules (Sherman, 2010). The lack of any definition of how motivational interviews should be used by the police, as well as the lack of training in holding these interviews, obviously raises a number of questions. In the current experiment, however, the agreed-upon criteria for what would constitute the content of the motivational interview served as a means of ensuring some level of consistency in the treatment provided.

One problem with criminological experiments is a failure to measure the treatments delivered. Many experiments assume that, because the selection has been random, the treatment has been delivered (Neyroud, 2017). In the current experiment, the field coordinator participated at the location of the experiment to ensure that the motivational talks were delivered, and to observe how they were delivered. However, this work was conducted by observing and listening, not by timing and noting the actual words spoken. The objective was to make sure the talks were delivered in line with the version that had been decided upon during the introduction week.

2.7 Measuring outcomes

To be able to show the processes of the experiment, a CONSORT (Sherman, 2010) (CONsolidated Standards On Reporting of Trials) diagram was created. The randomisation process led to the creation of two groups. Over the course of the eight-week experiment, 236 police interventions were carried out. After excluding all the interventions that fell outside the checklist, 144 cases remained. Each of these cases randomised the use of motivational talks. Of these cases, 13 were excluded due to the subjects having been given the wrong treatment, with questionings completed at an even number of minutes past the hour resulting in motivational talks in eight cases, and with the reverse being the case in five cases. According to the ITT analysis (Neyroud, 2017) all of these cases could have been included. They were excluded, however, due to the experimental rules, the checklist, and a decision to stick to the original plan.

CONSORT 2010 Flow Diagram Stockholm Drug enforcement trial

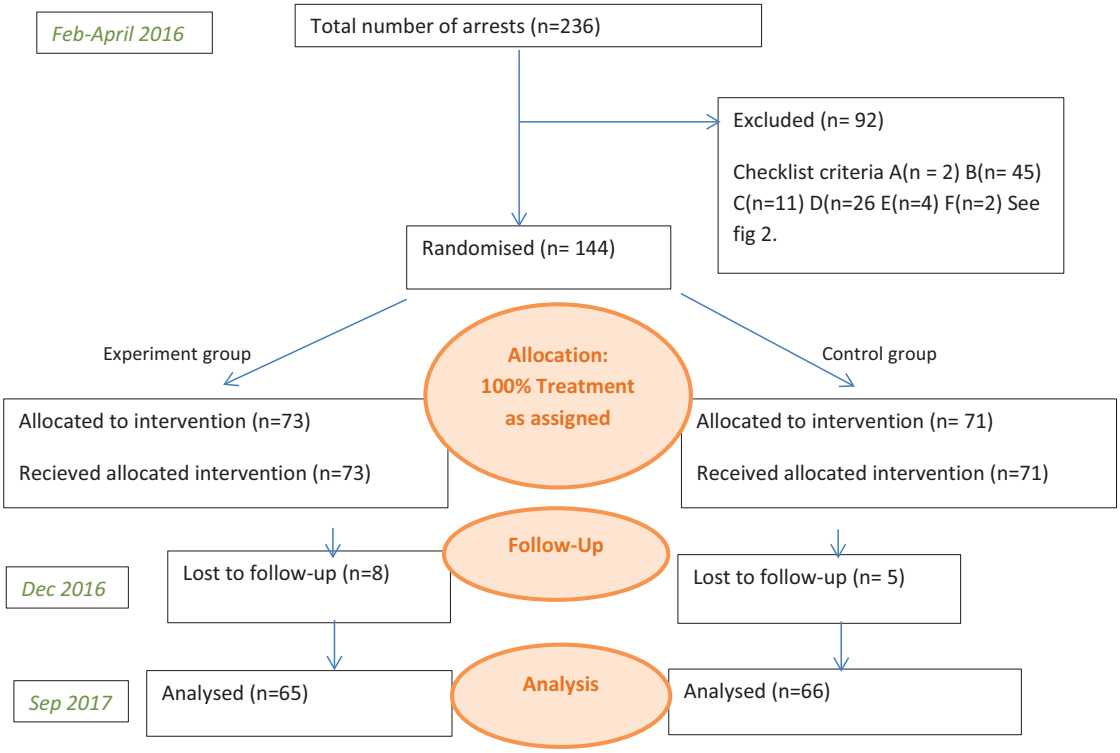

Figure 3. CONSORT diagram from the Stockholm drug enforcement trial, assignment and treatment.

2.8 Group consistency – first analysis

In order to ascertain whether the randomisation had been conducted correctly, it is important to consider not only the total number of cases in each group but also the composition of the groups. The outcome of the randomisation process was therefore tested by comparing the age and gender composition of the two groups. Both the age and gender variables were included due to findings in an evaluation on Mis that showed tendencies to direct MIs towards younger and female individuals (Sinadinovic & Wahlgren, 2007). The experimental group consisted of 65 cases, with a total of five female suspects, compared to the control group, which consisted of 66 individuals, with a total of eight female suspects. In the experimental group, 21 of the 65 group cases involved individuals under the age of 30, while in the control group, 16 of the 66 group cases involved individuals under the age of 30. The history of drug offending was also compared between the two groups, with no differences being found.

Table 1. Group consistency, gender and age distribution in the experiment and control group.

Group consistency:	Total	Women	Younger than 30
Experiment group	65	5	21
Control group	66	8	16
Column totals	131	13	37

When age is taken into consideration, a difference can be seen between the experiment and control groups. A chi-square test was conducted to see whether this difference was statistically significant. The difference was not found to be significant but might nonetheless suggest that officers had a slight tendency to select an even number of minutes in their questioning reports, thus placing the case in the experiment group, when they had a young suspect in front of them. Considering the results from the evaluation of the motivational interviews used by MUMIN, this suggests that the police know from experience that younger people are more easily influenced to accept treatment (Sinadinovic & Wahlgren, 2007). This might explain the slightly higher proportion of suspects under 30 years of age in the experimental group.

An analysis was added after finding a small amount of cases that consisted of individuals reoccurring in the sample. This analysis will be presented further below under the heading 'Cases versus individuals' to avoid any bias of the treatment effects.

3. Results

The limited result of counting the transportations shows that five transportations were conducted after motivational talks. Three of them ended at the specialised health care unit for abusers in Stockholm and two at the suspect's homes. No one in the control group asked for transportation or referral to heath care. This result is small but shows an effect of talking to suspects about their lives and health and offering transportation to health care.

3.1 Analysing results – relapse into drug offending

The question posed in the experiment was: do the motivational talks held by police officers affect relapse into drug crime among individuals given this treatment? At the time of the first follow-up (nine months), 51 per cent of the experimental group had relapsed into registered drug offending as compared to 61 per cent of the control group. After 18 months, however, the difference between the groups had become even smaller, with 63 per cent of the experimental group having relapsed, and 65 per cent of the control group.

Table 2. Relapses of all included cases, divided into three groups.

	TOTAL	RELAPSE	NO RELAPSE
Experimental group	65	33	32
Women	5	1	4
Younger than 30	21	11	10
Control group	66	40	26
Women	8	4	4
Younger than 30	16	10	6

The analysis shows that motivational talks as they are currently being used do not have a significant effect on relapse into drug crime for group and setting included in the current experiment at the second follow-up.

Table 3. Significance test of the difference of relapses.

Follow-up results (9 months)			
	Relapse	No Relapse	Row Totals
Experiment	33 (36.22) [0.29]	32 (28.78) [0.36]	65
Control	40 (36.78) [0.28]	26 (29.22) [0.36]	66
Column Totals	73	58	131 Total
The chi-square statistic is 1.284. The p-value is .2571.			

The result is not significant at $p < .05$.

There is no significant difference in relapse between the experimental group and the control group. The analysis has focused on the effect of a single, known motivational talk. Years of drug use might not be overcome by one talk. Repeated treatment, i.e., being given more than one motivational talk, might produce a different effect, with the research presented in the introduction of this article suggesting that a greater effect may be associated with being given more motivational talks. Considering that the police use of motivational talks has not been documented prior to the current experiment, it is impossible to know whether the individuals included in the study had previously received this treatment. What we know is that the individuals in the experiment group received a single motivational talk during the eight weeks of the experiment and that the control group did not.

Table 4. Significance test of the difference of relapses between the experiment and control group at the two follow-ups among the individuals younger than 30 years of age.

Younger than 30 follow-up (9 months)			
	Relapse	No Relapse	Row Totals
Experiment	11 (11.92) [0.07]	10 (9.08) [0.09]	21
Control	10 (9.08) [0.09]	6 (6.92) [0.12]	16
Column Totals	21	16	37 Total
The chi-square statistic is 0.379. ***p***-value .5382			

The result is not significant at $p < .05$.

The analyses of the possible effects of motivational talks also took the age distribution of the experimental and control groups into account, but the age difference between the groups did not appear to be linked to any significant difference in effect.

3.2 Cases versus individuals

The 131 cases, of which some referred to the same individual, were randomised into an experimental group (n=65) and a control group (n=66). According to an analysis of the relapse data, 27 cases were included twice, either as control/control or experimental/control. Excluding such cases, 104 cases with unique individual assignments were identified. Specifically, experimental individuals who had been exposed to treatment previously or multiple times and control individuals who had previously been exposed to treatment were excluded. The individual analyses were based on 54 experimental and 50 control cases. To be sure of the treatment effects of the treated individuals, this analysis was completed, but with no different results than the analysis of cases.

4. Discussion and concluding remarks

When the results of the study are reviewed in relation to Figure 1, we must conclude that there is no evidence that motivational talks provide an effective means of encouraging drug abusers to contact the health care sector. These talks do not affect the outcome measured in fewer drug crimes. This conclusion may be derived theoretically from the absence of any difference in relapses into drug offending between the treatment and control groups. At the same time, it is possible that motivational talks might have such an effect, and that the absence of an effect on relapse into drug offending is instead due to ineffective health care measures (Box 2 in the diagram). If the help provided by the health care sector is ineffective (Box 2), then no effect on either drug use (Box 3) or drug offending (Box 4) would be expected, regardless of whether the motivational talks influenced drug abusers to seek help. Taking this argument one stage further, if police officers were sceptical about the effectiveness of health care institutions and the treatments they provide, this might also have a negative effect on the motivation of police officers to encourage drug crime suspects to seek help.

Effect sizes of treatment are not often provided in criminological studies. There are a few relevant studies of Motivational Interviewing reporting effect sizes (Burke et al., 2004; Hettema et al., 2005; Lundahl & Burke, 2009). This effect size, expressed as Cohen's d (Cohen, 1978) is approximately 0.3 according to these studies. This is a small effect, just above the "No effect" criterion ($d<0.2$). Two issues are relevant. First, is it meaningful to implement interventions with almost no clinical effect? If so, secondly, will the current number of subjects (104) and the small effect size suffice to address the two statistical errors: Type 1 (this effect is not random) and Type 2 (can chance effects lead us to reject a true hypothesis)? If we want 80% power in a power analysis with $N=200$ and an effect size of 0.3, this would correspond to a 20% difference in outcome. The difference in the present study is 10% and N is 100. Such small effect sizes require substantially larger Ns to reach a conclusive statistical power.

The current findings refer to a sample: a specific police department at a particular location and within a particular time span. Generalising to the population level (all police departments, etc.) introduces another kind of uncertainty – but there is nothing to suggest that the actual sample is different by being better or worse than other departments. Hence, we have no reason to question the outcome on that basis, nor do we have reasons to question the outcome, with reference to a pronounced skewness of the outcome, say 10% improvement and 90% non-improvement. The actual outcome is well centred. It might be added that in relation to pharmacological trials, RCTs of new drugs/treatments with an effect size of 0.3 will never reach the market. We must find better interventions/treatments rather than hoping that methods which currently are ineffective (Cohen's $d<0.5$) will become better.

Summing up, 60 per cent of the members of all the groups examined in the study were found to have relapsed into drug offending. Not only did such individuals continue to use and possess drugs, they were also detected by the police. This implies that the relapse into drug use is potentially much higher than 60 per cent. We simply need better interventions on the individual level as well as the contextual/societal one.

If the department wants to continue to use motivational talks in the hope of producing effects other than reductions in the level of relapse into drug offending, or in the hope that repeated motivational talks might lead to reduced offending, it would be possible to structure the way the talks are given, document them and then conduct a new evaluation. In the LOTS project referred to at the beginning of this article, repeated treatment produced a larger effect in terms of abusers entering rehab (Palmstierna & Winerdal, 2006).

In an essay on the use of MI in the context of drug treatment provision, Andersson (2009) argues that the spread of the use of MI to a number of different areas of professional prac-

tice is risky, since the quality of the method may suffer as different organisations adapt it to fit in with their own practices. This would lead to the method being used in ways that are not compatible with the evidence base that shows it to be effective (Andersson, 2009). This argument might help explain why the police's use of motivational talks has not been found to produce an effect. One possibility would thus be to train police officers in the evidence-based motivational interviewing method as it is used in the health care sector, and then to evaluate its use in the police setting.

The randomised controlled trial was a feasible evaluation model in this experiment. One way of developing the professionalism of the police is to describe, document and facilitate the evaluation of more aspects of police work. Small-scale field RCTs are practicable to conduct and have the added advantages of being neither expensive, difficult nor ethically sensitive. The steps set out by Sherman (2010) and the knowledge of 'pracademic' researchers (Magnusson, 2020b) are invaluable sources of guidance for the design, implementation and analysis of such studies.

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Appendix

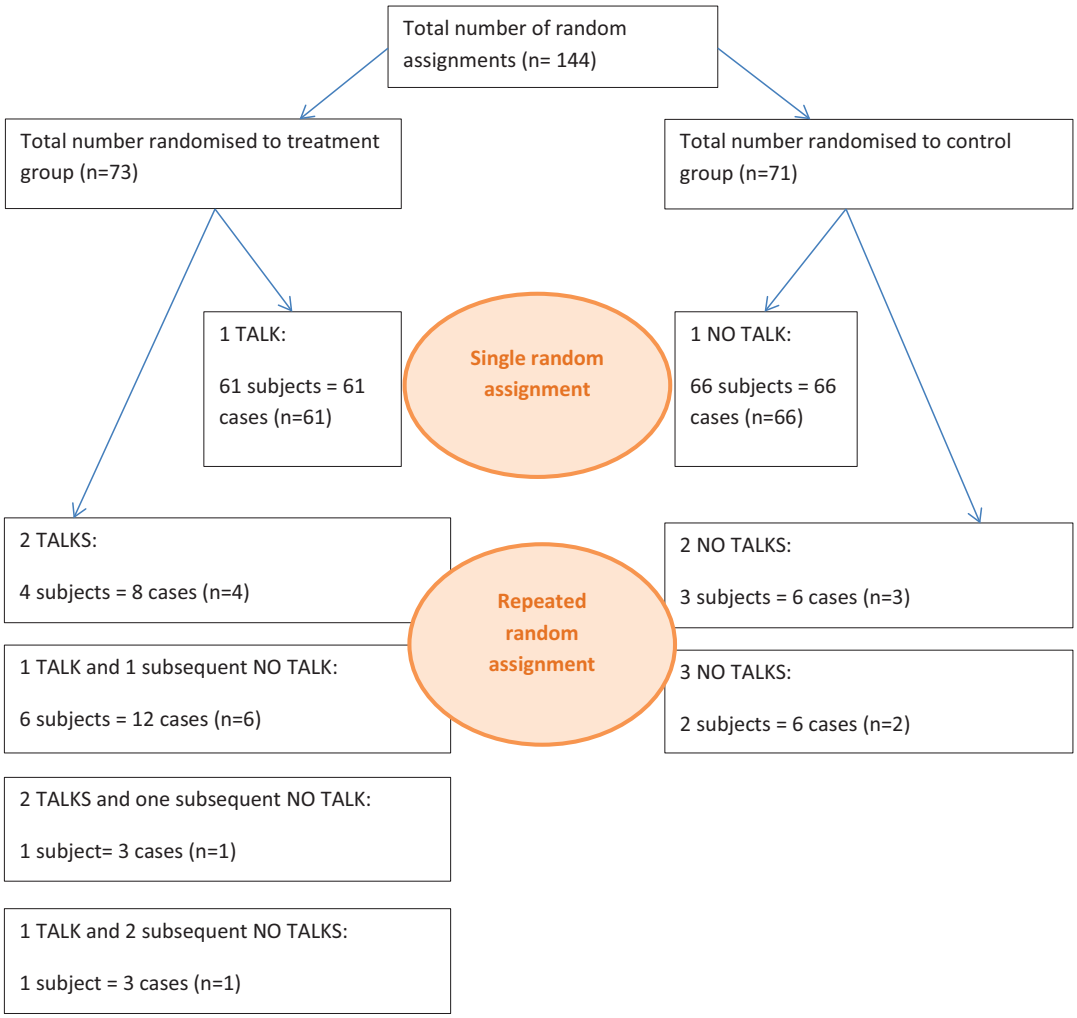

Figure 4. CONSORT diagram of random assignments, single and repeated.