

Introduction

...

The present study

By sourcing Available anonymous Routine Outcome Monitoring (ROM) data, ^{derived from} collected as part of MSTs quality assurance ^{mechanism, this study aims to} and improvement system, was used to investigate the effectiveness of Multisystemic Therapy ^{on treatment}

^{through pandemic the} outcome during the COVID-19 restriction measures in Norway ^{Continuous} compared to before and after. The system has ^{evaluation promotes of detecting and addressing} been designed to increase the likelihood that problems with treatment fidelity and treatment outcome are

^{program} identified and addressed on an ongoing basis at family, therapist, supervisor, expert consultant, and organizational ^{Anonymised... were released from} operating the treatment level (Henggeler et al., 2009, p. 284). ROM data were reviewed for families starting ^{clinical}

^{COVID approximately} treatment two years before the national lockdown until about 17 months after. I was thus able to compare the ^{archive}

^{Such data availability enabled a multi-group study design} effectiveness of MST for families who received treatment when the lockdown occurred and those who started ^{by examining MST users' recovery profiles before, during,} treatment after the lockdown date (some of these probably experienced later periods of restrictions) with the ^{and after the lockdowns at treatment commencements.} families who received the treatment before the pandemic onset. This is an important extension of previous

^{that assessed effectiveness} research which has primarily studied MST under normal circumstances where physical meetings are feasible. To ^{This study hence} ^{explicitly evaluate the event of COVID lockdown, conditions} fill this gap in the literature, I examine three key questions as part of MSTs continuous quality improvement ^{propose the following research questions}

system: 1) Do treatment outcomes of MST change for those adolescents who receive treatment during or after

the COVID-19 lockdown date; 2) Is there a change in which covariates influences the treatment outcome; 3) Is

there any differences in the growth patterns for those receiving treatment before, during and after the COVID-19 lockdown date?

To answer these questions, a longitudinal natural-group comparison was used. Given the limited evidence on the effectiveness of interventions for adolescents with serious conduct problems during the COVID-19 pandemic, and on how the situation affected this group of young people, it is difficult to establish testable hypothesis related to these research questions. (også nevne blandet evidens fra ikke-kliniske utvalg?) The present study thus represents an exploratory multi-group comparison of how MST worked during the COVID-19 restriction measures.

Methods

Participants

Anonymised clinical record of 2,067 MST clients
The participants are MST cases registered in the Norwegian Center for Child Behavioral Development (NUBU) whose admission days were between ... and ... have been database system, which started treatment between the 13th of March 2018 and the 31st of August 2021. A small portion of this sample have been included in other studies (e.g., Hukkelberg et al., 2022; Keles et al., 2021). A small information about Norwegian youth and their families total of 2,067 young people and their families, referred to MST by the municipal Child Welfare Services for who were referred to the MST program. [*] Next, a total number of serious and persistent conduct problems, received treatment during this period. Due to this studies exclusion criteria (cases with several missing values on YLS/CMI and the national outcome goals at admission to treatment (TO)), 46 cases (2.23%) were excluded from the sample. Five of these cases had missing values on both YLS/CMI and the national outcome goals, and 11 had missing on the latter. While 30 had missing on all

variables except from treatment duration and region, due to the family's lack of consent to register case data.

The final dataset contained N=2021 youth between 7 and 18 years of age (M_{age} = 14.33, SD_{age} = 1.60), with 14.33 years (add .05 years) (SD = 1.60). 80.2% of the adolescents were non-immigrants, 10.8% were

moderate overrepresentation of boys (63.4 percent), immigrants, and 9.0% had immigrant parents. Of those with an immigrant background, the majority were of Asian (40.3%), European (28.5%) or African (21.2%) origin. Most clients did not have immigration background (80.2 percent), with the rest being first- (born overseas, 10.8 percent) ... months (SD = ...) and second-generation migrants (overseas-born parents, 9.0 percent). from Asia (40.3 percent), Europe (28.5 percent), and Africa (21.2 percent).

In order to receive MST treatment, the youth must meet the following inclusion criteria, evaluated by the team

[*] Inclusion criteria are:

supervisor based on the referral information and the teams initial assessment: 1) the adolescents were between 12

and 18 years (NUBU, 2022b), 2) the adolescent displayed serious rule or norm breaking behavior, 3) the

adolescent is at immediate risk of out-of-home placement (NUBU, 2021). While youths with the following

Exclusion criteria are:

characteristics are to be excluded from the intervention: 1) adolescents living by themselves and do not have any

acting in conditions adults who can act as parents or primary caregivers, 2) adolescents with serious mental health problems (e.g., is

or at imminent along are actively suicidal, is psychotic, or is a danger to themselves or others), 3) sexual offending youths (without other

without autism spectrum disorders affecting social communication and interaction criminal or antisocial behavior), 4) the adolescent struggles with social communication and interaction, and

repetitive behavior, which may be caused by an autism spectrum disorder, 5) the adolescents level of intellectual

ability is the most direct contributor to the referral behavior. In addition, minors

may also be accepted into the program along with under the age of twelve is admitted to treatment. This only happen exceptionally, but is usually due to an older

sibling who started in the family already receiving MST treatment.