SUMMARY

Screening and spotting in the juvenile justice system
A study of the validity of psychological dysfunctioning and the reliability of the National Set of Instruments Juvenile Justice System (LIJ)
Authors: Dr. M. Timmermans en dr. M. Witvliet

National Set of Instruments Juvenile Justice System (LIJ)
In the juvenile justice system, there is increasing attention for valid and reliable diagnostic instruments. Relatively independently of one another, various chain partners in the juvenile justice system engaged in spotting, screening and making risk assessment of young people. Because of this, in each link of the chain different instruments were used. In order to tackle this problem, a national instrument framework has been developed in consultation with the chain partners in 2006. The National Set of Instruments Juvenile Justice System (LIJ) enables chain partners to better assess the risk of re-offending and to apply suitable (care) interventions. The LIJ maps out three different risks regarding the young person: the General Risk of Re-offending (ARR), the Risk of Violence against Persons (RGP) and the Dynamic Risk Profile (DRP). In addition, by means of the LIJ-instrument an inventory can be made of care signals with regard to the young suspect.

The LIJ includes a pre-selection instrument in the initial phase in which statistical data are collected. This part of the instrument is outside the scope of this study. After this pre-selection instrument, instrument 2A follows, which is filled in by the Child Care and Protection Board. This part of the LIJ goes deeper into other static data and into dynamic risk factors in ten different domains. In addition, the child protection worker maps out care indicators in the 'care assessment' of 2A. In case a young person has a medium or high Dynamic Risk Profile, in addition to instrument 2A instrument 2B is also filled in. With this instrument, additional information is collected with regard to the risk domains that have been mapped out in 2A. Before the LIJ can be implemented nationwide, it must be investigated whether any possible adaptations to the instrument need to be made. This study investigates to what extent the LIJ is reliable and valid with respect to the part that measures psychological dysfunctioning.

Research questions
The objective of this study is to assess the reliability of the LIJ and the validity of the indicators concerning psychological dysfunctioning, as they occur in the selection instruments 2A and 2B of the LIJ.
The research questions are:

1. What is the content validity (the extent to which the instrument measures the intended construct) of the indicators for psychological dysfunctioning that have been included in the selection instruments 2A and 2B?

2. What is the construct validity and in particular, the convergent validity (the coherence of the results with the results of a similar instrument) of the indicators for psychological dysfunctioning as they occur in the selection instruments 2A and 2B (compared with the Strengths and Difficulties Questionnaire (SDQ) or Screening instrument psychological disorders (SPsy))?

3. What is the interrater and intrarater reliability (extent of correspondence between and within raters) of the selection instruments?

Research method

In order to determine the content validity of the indicators for psychological dysfunctioning included in the LIJ, we carried out a literature study. The aim of this study was to assess the extent to which indicators for psychological dysfunctioning in the LIJ are a realistic reflection of the young person’s psychological dysfunctioning according to the literature.

The data collection on behalf of the study on convergent validity and interrater and intrarater reliability took place at the Child Care and Protection Board (Raad voor de Kinderbescherming) in Utrecht and Rotterdam. In order to analyse the common ground between raters and within the two measurements of one rater, we have been able to collect a total number of 28 completed 2A-instruments. To analyse the interrater reliability 21 2A-instruments have been used. The seven remaining 2A-instruments have been used to determine the intrarater reliability. Finally, in order to study the convergent validity of the indicators for psychological dysfunctioning, we have included 61 completed 2A-instruments with supplementary diagnostics (SDQ/SPsy). No 2B-instruments have been found in the data collection. Therefore, the research questions are solely answered for 2A.

In order to analyse convergent validity, correlations have been examined between the care indicators in the LIJ and SDQ/SPsy-scores. Due to the results of a recent MA thesis (Boonekamp, Wissink, Stams & van der Laan, 2010) doubts have arisen about the reliability and validity of the SDQ regarding measuring psychological problems of youth offenders. Therefore, we do not describe the results of the study on convergent validity in the main report, but only in annex 3.

---

1 The number of collected completed instruments is smaller than had been intended. The realised number was the maximum achievable number in relation to the available capacity and workload at the Child Care and Protection Board in Rotterdam and Utrecht.
Interrater and intrarater reliability have been studied by means of Spearman's \(\rho\). With this correlation coefficient, the extent of correspondence between and within raters can be examined.

**Results and conclusions**

On the basis of the literature study, we find that the selection of indicators for psychological dysfunctioning (risk factors) as it has been included in the ‘care assessment’\(^2\) of the LIJ, is incomplete. The LIJ includes a large part of the symptoms of psychological dysfunctioning, however, not all of them return in the ‘care assessment’. Symptoms such as social problems, for instance, do not return in the ‘care assessment’. A large part of the risk factors as described in the literature at the macro-, micro- as well as the individual level, are also lacking. This way, these indicators for psychological dysfunctioning are not included in the assessment of the child protection worker of the occurrence of care signals. In short, these results show that the ‘care assessment’ of the LIJ is a only to a limited extent a representative reflection of psychological dysfunctioning.

With regard to the interrater and intrarater reliability of the LIJ, we conclude that, on the basis of the current (limited) number of collected instruments, there is sufficient correspondence between raters and within raters for a large part of the risk scores and care indicators. The results regarding the interrater and intrarater reliability are an indication that for a large part of the aspects of the LIJ (personal) characteristics of child protection workers have little influence on the way the instrument is filled in. It must, however, be remarked that due to the limited number of cases, a high degree of ‘coincidence’ in the results cannot be ruled out. A second remark concerns the method: the largest part of the interrater study has been based on sound recordings of the conversations with the young persons and their parents. The results with regard to the interrater reliability could have been more accurate if the study had been based on physical presence during the conversation. In that case, non-verbal communication could also have been taken into account.

**Suggestions for adaptation of the LIJ**

A number of adaptations to the LIJ which could improve the instrument, are possible, such as:

- **The validity of the indicators for psychological dysfunctioning**
  We suggest to complete the ‘care assessment’ by expanding it with items that are already included in the risk domains of the LIJ. The aspects Social skills, Social rejection and Discordant parent-child relationships could be added to the ‘care assessment’ in order to increase the validity of the indicators for psychological dysfunctioning.

- **The size of the instrument**

\(^2\) On the basis of the ‘care assessment’, the child protection worker assesses the occurrence of care indicators.
The study shows that not all the items within the risk domains and within the sections of care indicators are strongly connected to the eventual risk domain score or to the assessment of the occurrence of care signals. In order to limit the size of the LIJ, these items could perhaps be removed. Attention must be paid, however, that the items that can potentially be removed, do not contain any extra necessary information for the child protection worker.