On describing the residential care process: social interactions between care workers and children according to the Structural Analysis of Social Behavior (SASB) model
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Summary

In the field of residential child care the care process still is a black box. Both practitioners and researchers acknowledge that it is insufficiently known what is happening between the moments of admission and discharge of a child. Consequently, a need for process evaluation is felt. The present research project aims at specification and clarification of the residential care process.

A central component of residential care constitutes the residential living unit or living group. Within these living units, child care workers are the professional practitioners that are responsible for creating the primary treatment environment by incorporating interventions in daily life situations. A stable, safe, and positive therapeutic milieu continually provides the children with experiences that shape them. Social interactions between child care workers and children determine the residential care process.

The Dutch pedagogue Kok played a prominent role in shaping practice in Dutch residential child care settings. Different treatment approaches are provided and this study is focussed on two main types of residential care.

The first type of care, described as *primarily providing structure* (STR), aims at children who show externalizing behaviors as in conduct disorder, attention deficit disorder, and hyperactivity. Structure refers to boundaries that are adequate for healthy development. The most important forms of structure are rules, behavioral limits, and daily routines. Rules and behavioral limits must be few in numbers and need to be stated clearly.

The second type of care, described as *primarily providing emotional and affective care* (EAC), aims at children who have experienced abuse, neglect, disrupted family relationships, or other trauma. These children have difficulties with developing attachments. The relationship between care worker and child is considered as a critical therapeutic element. The care worker must try to build a relationship based on mutual trust with these children, which is supposed to become the motivation for the children to start behaving more adaptively.

It is explored whether those two residential treatment approaches can be distinguished by describing interpersonal behaviors of care workers and children. The central research question is: *What are the social interaction patterns between child care workers and children in a Dutch residential treatment center, both in residential living units where primarily structure is offered and in living units where primarily emotional and affective care is provided?*

Data are collected by means of systematic observation, which is defined as: making a reduced representation of reality, in such a way that specific aspects of this reality are quantified by a set of standard rules. In general, preliminary work towards systematic observation concerns making a number of interrelated decisions: the kind of behavior that is going to be observed, the size of the unit of analysis, the type of data, the medium for recording, the sampling rules, and the recording rules.

A considerable number of systems to categorize human behavior have been developed. A short review of some important systems that are relevant in the scope of the present study is
presented. Those concern observational instruments that are designed to code social interaction and also can be applied to describe a treatment process.

The measurement system applied in the present study in order to reliably describe social interactions between residential care workers and children concerns Benjamin’s model for *Structural Analysis of Social Behavior (SASB)*. This circumplex model was designed in 1973 and the current version dates from 1986. The SASB is derived from Leary’s Interpersonal Circle (1957) and from Schaefer’s model for parenting behavior (1965). It classifies social interactions in terms of three underlying dimensions that are proposed as basic dimensions for the structure of social behavior, which are focus, affiliation, and interdependence. *Focus* reflects the direction of an interaction, which can be focus on other or focus on self. *Affiliation* is a love to hate continuum that is represented on a horizontal axes and *interdependence* is a control to submit continuum that is represented on a vertical axes. For each focus these horizontal and vertical axes constitute a diamond shaped surface. In the full SASB model 72 classifications of social interactions are located on the edges of the diamonds. In the SASB cluster model, which is applied in this study, these 72 classifications are summarized to 16 classifications of social interactions. These concern eight classifications with focus on other: leaving free, affirm, active love, protect, control, blame, attack, and ignore; and eight classifications with focus on self: separateness, disclose, reactive love, trust, submit, sulk, recoil, and walling off. So on the SASB cluster model the underlying dimensions organize 16 descriptions of social interactions, all reflecting a particular degree of affiliation in combination with a particular degree of interdependence.

The SASB model has the ability to define predictive principles. Three predictive principles are considered in this study: similarity, complementarity, and antithesis. In case of *similarity*, two persons show comparable interpersonal behaviors, which causes instability of the relationship, for example two blamers, two controllers, or two affirmers. The principle of *complementarity* predicts the way in which interpersonal behaviors tend to elicit each other. It states that if the first member of a dyad is focussing on other, there is a strong draw for the second member of this dyad to react by focus on self with the same amount of affiliation and interdependence. A complementarity relationship refers to a stable relationship, which is not per definition a good relationship. With the therapeutic concept of *antithesis* one can try to alter interpersonal behavior of another person. Antithesis is defined as the opposite to the complement of a specific behavior. Through the principle of complementarity, the antithesis pulls for the opposite of any given interpersonal behavior.

As the use of the SASB model is a novelty in the Netherlands with respect to describing the residential care process, a methodological evaluation of this model is added as a secondary theme of the present study. On the basis of experiences with applying the SASB model in this study some psychometric characteristics of the SASB instrument, such as reliability and validity, and also its time-efficiency and clinical usefulness, explicitly are discussed.

The current process evaluation study was carried out in conjunction with the Widdonck, a Dutch residential child care center for the treatment of children with severe emotional and behavioral problems. A fundamental treatment philosophy underlies both specific types of care (STR and EAC) that are provided. One basic element of this fundamental treatment philosophy concerns the dynamic or functional approach of the maladaptive child behaviors. It is assumed that these children who suffer from severe problems have a reason for behaving
themselves the way they do, which is surviving. For that reason the residential child care workers have to make considerable effort to understand the child’s behavior and needs by continuously paying attention to overt as well as covert symptoms. Another basic element of the treatment philosophy is that care workers have to create basic security. Besides physical safety, basic security means psychological safety, guaranteed by treating the children in a caring, fair, humane, respectful, predictable, and positive way. Note that in the Widdonck interventions regularly are evaluated on the basis of video recordings of social interactions between care workers and children.

Four out of ten living units of the Widdonck participated in the study; two of each type of care (two STR units and two EAC units). Per living unit four out of five care workers were involved. No significant differences according to sex, age, level of education or mean time of service were found between both type of care workers. In STR living units 14 out of 21 children were involved, and in the EAC units 10 out of 11 children were involved in the study. STR children appeared to be significantly older and concerned significantly more boys. EAC children significantly more often came from broken families and their problems appeared to be more complex. In total 56 STR interaction dyads and 40 EAC interaction dyads participated in the study.

In daily life situations in the livings units the care workers with all children around were uninterruptedly videotaped for exactly 15 minutes per recording. In total 88 recordings were made; 48 STR recordings and 40 EAC recordings. This implies 13 to 15 minutes of videotape per interaction dyad.

Each videorecording was transcribed according to the principle ‘who speaks or acts towards whom and what does this person say or do?’ Each transcript was broken into uninterrupted utterances and these utterances were broken into elements, defined as ‘a complete thought a psychologically meaningful interaction’.

With the help of the transcripts all videotapes were coded element by element according to the SASB cluster model. Sixteen coders completed extensive coder training and carried out all the coding work two by two. The coding procedure consists of several steps, namely finding the participants of the interaction, determining the focus, determining the degree of affiliation, determining the degree of interdependence, and combining these judgements to identify the SASB cluster that describes the social interaction. In total 28776 interpersonal behaviors were coded; 8134 of STR care workers, 6450 of EAC care workers, 8072 of STR children, and 6120 of EAC children.

All coded interpersonal behaviors were analyzed with respect to frequencies, one-step sequences, and complex communication. In complex communication more than one SASB cluster is needed to adequately describe the social interaction. For the purpose of testing the differences, the chi-square test was used with and alpha level of 0.05, and the residuals were analyzed by computing standard z-scores and evaluated at the 0.01 level of significance. In addition, in order to examine the magnitude of the found differences, the effect sizes of the differences and the Cramer’s phi measure of association were computed.

Results revealed far more similarities than differences between the two types of residential care. Respecting frequencies, sequences, and complex communication, both types of care workers as well as both types of children showed comparable interpersonal behaviors. The effect sizes of differences that actually were found appeared to be very small. Moreover, interpersonal behaviors of care workers within the same type of care appeared to differ as
much as interpersonal behaviors of care workers between the two types of care. The same
applied for interpersonal behaviors of children. So individual persons within the residential
living units, children as well as care workers, apparently react more in accordance with their
own personal style instead of reacting in a way that is supposed to be characteristic for the
kind of living unit they belong to.

The similarities in social interaction patterns provide more insight into common elements of
the residential care process. Interpersonal behaviors of care workers and children are linked
into recognizable patterns. The most prominent concern the following.

- Corresponding to their roles, care workers mostly are focussed on the children, whereas
  children mostly are focussed on themselves.
- Care workers by far the most show behaviors classified as protect and affirm (each ±30%).
  Next they show separateness, leaving free, and strong control (each ±10%). To a very small
  extent they show active love, blame, ignore, and disclose (each ±1%).
- Children by far the most show behaviors classified as disclose (±30%), and next
  separateness, and trust (each ±25%). To a lesser degree they show submit (±5%), and next
  control, reactive love, sukk, and walling off (each ±2%).
- Both care workers and children show truly friendly behaviors in almost two thirds of all
  their interpersonal behaviors. This indicates that care workers succeed in creating a positive
  treatment environment, and that children benefit from this predominantly pleasant
  atmosphere. This observation is sounding as a matter-of-course, but the importance of it is
  that a positive atmosphere in many ways is connected to a better chance of a healthy
development of the severely disturbed children. Note however that the number of active
  love / reactive love interchanges seem to appear less than in a context of ‘normal families’.
- Care workers and children show only low frequencies of hostile behaviors, but children
  more often are hostile (±5%) than care workers (±2%). Care workers mostly react hostile to
  submitting, sulking, or controlling child behavior. Children mostly react hostile to
  controlling or blaming behaviors of care workers.
- Child care workers put a little emphasis on controlling behaviors in comparison with
  autonomy-giving behaviors. This observation refutes the generally accepted perception that
  care workers mainly function as disciplinarians. Children in almost two thirds of all their
  interpersonal behaviors show autonomy-taking behavior and in one third of all their
  interpersonal behaviors they are submitting.
- The principle of complementarity structures a great deal of social interaction patterns
  within the residential living units. Especially complementary interchanges of leaving free /
  separateness, affirm / disclose, protect / trust, and control / submit often occur. Referring to
  the basic treatment philosophy, this guarantees predictability of the care workers.
  Apparently, the mechanism of complementarity can serve as a guideline in clinical practice
  in order to choose interventions. However, more research is needed to determine in what
  situations it is pedagogically less effective.
- According to the principle of antithesis care workers show control as a reaction to
  separateness of the children in order to provoke submitting child behavior. In addition, by
  demonstrating separateness as a reaction to control of a child, care workers try to show that
  they do not have time for a demanding child and try to reach that the child will leave them
  alone. Since the principle of antithesis is very constructive, care workers could apply more
  kinds of antithetic behaviors more often and more consciously in daily practice.
Summary

The result of the lack of differences in social interaction patterns between the two residential treatment approaches is discussed in three ways. Firstly, with respect to the research instrument; secondly, with respect to the research design; and thirdly, the meaning of the findings for the field of residential care is discussed.

Obviously, the findings of the study are related to the strength of the research instrument. The application of the SASB model as an observational instrument is very labour-intensive. In this study it took about eight hours to code one videotape of 15 minutes and per minute of videotape recording approximately 65 minutes were needed to carry out the SASB coding. However, reliably results can be reached. In the literature Cohen’s kappas up to .94 are mentioned for ratings on the SASB cluster model. In this study kappas of .70 to .92 were reached for interrater reliability and a kappa of .91 was reached for intrarater reliability.

Concerning the concept of validity the literature reports many studies that strengthen the validity of the SASB model, especially on construct, content, and predictive validity. For this purpose Benjamin developed questionnaire items that describe each point on the full SASB model and questionnaire items that describe each cluster of the SASB cluster model. Correlations between these items support the circumplex structure of the SASB model: adjacent categories have high positive correlations; categories 90 degrees apart have no correlation, and categories 180 degrees apart have high negative correlations. Factor analyses on the SASB dimensions of focus, affiliation, and interdependence generated reasonable facsimiles of the SASB model. These results appeared to be highly consistent across normal as well as psychiatric subjects. The present study was not designed to establish the validity of the SASB model in a Dutch setting. However, an informal face validity check was carried out in the research setting. Care workers easily recognized their own representations and those of their colleagues. Furthermore, the SASB predictive principles of similarity, complementarity, and antithesis appeared to be strongly present in the data of this study.

In clinical practice of residential care thinking in terms of the SASB dimensions can help to recognize and clarify interaction patterns of children and care workers and also to decide in what direction these patterns have to be changed. So it can help care workers to interact more consciously and well-considered, without becoming a set of regulations. The SASB model also can be used to follow the care process and evaluate outcomes in interpersonal terms.

The most important critical remarks about the research design are the following. By choosing the children’s spare time for describing the social interactions, other critical moments for the implementation of the treatment philosophy might have been left out. However, the richness of interactions during spare time must reflect critical characteristics of those interactions. Next, it was chosen not to code verbal contents of the interpersonal behaviors, which could have been a valuable completion. Inevitably, the research participants to some extent will have been affected by the presence of an observer with a camera, but it is expected that this bias is produced in the same way in both types of living units. It is stated that none of these choices excessively have affected the ability of the study to detect differences between the two residential treatment approaches.
Concerning the meaning of the research findings for the field of residential care, the first comment that is made is the distinction between different types of children according to different requests for help being not as clear as posed so far. The same counts for the distinction between different types of residential care. Both practitioners and researchers have to contemplate on the value of embedding the concepts of ‘structure’ and ‘affect’ in separate treatment approaches and also on the value of making a distinction between the two types of children. It is argued that common critical features of the residential care process deserve more empirical and clinical attention, especially the way common interaction patterns in daily life situation within the living units are related to outcome of residential care. In addition, it still is not sufficiently specified how to train care workers in such a way that they are capable of being conscious about and reflecting on their own performance at the very same moment they actually are performing, in order to well-considered choose their next intervention. This needs further improvement. Additionally, it has been demonstrated that care workers perform more in accordance with their own personal style than to applying a specific type of care. This might imply that a child’s needs should be matched to a specific care worker, rather than to a specific treatment approach.