

# Staff's Collaborative Work Process with an Adolescent Boy with Autism and Intellectual Disability in Community-based Sheltered Housing

MARIE HÜBEL, KARIN LINDER & BENGT SIVBERG

*Department of Health Sciences, Faculty of Medicine, Lund University, Lund, Sweden*

**ABSTRACT** *The aim of this single-case study was to describe the staff's collaborative work process for a period of three-and-a-half years caring for an adolescent boy with autism and intellectual disabilities living in an apartment of his own together with his caregivers. The longitudinal data included the staff's (two men and two women) common open diary, repeated individual interviews and focus group interviews. Detailed content analysis of the diary and the interviews indicated that the staff's perceptions of their pedagogical work, teamwork and work conditions changed from a positive to a largely negative view, appearing to affect the pedagogical strategies adopted. Also, it became visible that the unique work situation, involving a lack of actual goals, feedback and pedagogical supervision may have negatively affected the collaborative work process and the staff's effort to establish structure and consensus in the pedagogical work.*

## Introduction

Caregivers working in mental health care are exposed to great psychological strain and difficulties in their task due to the fact that emotional relations with these residents are a challenge for caregivers (Colvez, Joel, Ponton-Sanchez & Royer 2002). Besides the fact that carers appear to experience a greater burden than has been reported for family caregivers (McCallion, McCarron & Force 2005), the distress among carers is consistently associated with increased disability in the individuals they care for (Hoare, Harris, Jackson & Kerley 1998). Caring for individuals with autism spectrum disorders (ASD) is an even more demanding task because of those individuals' social deficits and communicative difficulties (Bryson 1996) such as stereotypes, violence and self-injurious behaviour (Peters & Gillberg 1999), as well as hyperactivity and changes in state of mood (Schopler & Mesibov 1984). Provocative care situations involving behaviour such as unpredictable and violent actions frequently occur and are also demanding

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Correspondence: Marie Hübel, Department of Health Sciences, Faculty of Medicine, University of Lund, P.O. Box 157, SE-221 00 Lund, Sweden. Tel: +46 46 222 19 08. Fax: +46 46 222 1935. Email: marie.hubel@med.lu.se

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for the caregivers because the meaning of the behaviour is often unclear and sometimes impossible to understand (Hellzen, Asplund, Sandman & Norberg, 2004). Hellzen and Asplund (2002) stated that staff caring for a person with a severe autism spectrum disorder described themselves as being in a chaotic world because they perceived their work situation as fragmented and isolated.

In Sweden the public authorities, in accordance with the Act Concerning Support and Service for Persons with Certain Functional Impairments (LSS 1993:387), have the responsibility to provide optimal care to persons with functional disabilities. As more and more individuals are being cared for in community-based settings, it is important to ensure that staff are received and retained, which cannot be facilitated if their difficulties are not addressed and understood. However, studies (Blumenthal, Lavender & Hewson 1998) have shown that the reorganization of accommodation to establish community-based care often results in a higher level of stress and insecurity due to factors of change in professional roles and responsibility brought about by the community. Other organizational issues connected to the care are recruitment (Wall 1990) and retention of staff (Razza 1993).

The fact that many caregivers working with individuals with autism are often unqualified (Schopler & Hennike 1990) and receive a low level of management support (Bell & Espie 2002) may also entail a risk of burnout among them (Wall 1990). However, despite these obstacles to optimal care, these disabled individuals are dependent on professional caregivers being accessible. There is also a growing body of evidence that caregivers and teachers play a central role in the development of an individual's abilities and skills (Van Bourgondien & Mesibov 1989) and that consistency of staff approach is the most important factor in successful care (Hattersley & Champion 2000). Establishing consistency in the work, however, requires that the individual responds to the caregiver (Sigman, Mundy, Sherman & Ungerer 1986). These authors showed that children with autism display a much lower frequency of social interaction with their caregivers than children with other disabilities. Consequently, there is a huge challenge and a demanding pedagogical task for caregivers to reach these individuals, and this interaction is not possible to realise if the caregiver does not have the necessary competence (Van Bourgondien & Mesibov 1989). Also, Jennett, Harris and Mesibov (2003) emphasize that appropriate tools such as adequate training are necessary and increase the professionals' feelings of competence (Cherniss 1985). Van Bourgondien and Reichle (1997) and Whitaker (2002) stressed that specialised training is required to handle the different specific problems in autism. According to Murphy *et al.* (2005) violent and challenging behaviours may occur in people with an autistic disorder when their daily routines are interrupted, due to their sensitivity to change in the daily environment and their need for a clear and indisputable structure in the staff's approach. Hellzen and Asplund (2002) stressed that caregivers working with a person with autism praised the structure; in particular, the use of schedules made it possible for them to endure their job.

Nowadays a large number of caregivers working with individuals with autism receive at least some specific training in structured teaching according to Treatment and Education of Autistic and related Communication-handicapped CHildren (TEACCH) (Schopler 1997), which is one of the most frequently used residential programmes designed specifically for persons with autism (Van Bourgondien & Reichle 1997). The TEACCH Division programme founded at North Carolina University at Chapel Hill by Eric Schopler in 1972 (Schopler 1997) is an empirically based special pedagogical programme and the most widespread treatment concept in Sweden (Durnek *et al.* 2000). The purpose of the TEACCH is to maximise the degree to which each resident can function as independently as possible in the community by giving structure to their lives. The programme directly addresses the deficits of communication, executive functions, attention and lack of structure (Van Bourgondien & Schopler 1990).

The study by Ozonoff and Cathcart (1998) provided clear evidence that implementation of the TEACCH-based programme is beneficial in improving the cognitive and developmental skills of children with autism, and suggested that those children perform more independently in the community as adults. However, Jennett *et al.* (2003) pointed out how important it is that the staff are committed to and understands the goals of the philosophy, i.e. really understanding the underlying meaning of the philosophy. The authors further discussed how identification with a formal ideology provides membership in a group in which everyone shares the same values and work as a team.

Collaboration in professional work is defined as a process where two or more people “work together to create or achieve the same thing” (Cambridge Advanced Learner’s Dictionary 2003), which in this study translates to functional pedagogical work with an adolescent boy with autism. In the organizational studies literature team collaboration is characterized by attributes such as shared decision-making and goal setting and exchange of information and knowledge (Henneman, Lee & Cohen 1995). In healthcare there is a trend towards increased teamwork (Lemieux-Charles & McGuire 2006). Cohen and Bailey’s (1997) team effectiveness model depicts the complex interaction between organizational context (e.g. structure, supervision and training environment), team process and team outcomes. The model makes a distinction between objectives outcome such as performance and cost effectiveness, and subjective outcomes such as team member’s perception of their team effectiveness (e.g. perceived task outcome, well-being and willingness to work together) (Lemieux-Charles & McGuire 2006). For the purpose of our study to describe the staff’s perceived experience of their collaborative work process we drew on the subjective outcome perspective of Cohen and Bailey’s (1997) as well as Hyldegard’s (2006) definition of a group as consisting of individuals engaged in and affected by a collaborative problem solving process. This level of collaboration characterizes high functioning teams with positive communication patterns and high levels of coordination, cooperation and participation (Poulton & West 1999). These processes are positively associated with perceived team effectiveness (Lemieux-Charles & McGuire 2006). The literature also describes positive

outcomes of collaboration such as improved work satisfaction, diminished feelings of powerlessness, improved communication and agreement between staff as well as relevant and sufficient care and treatment (Henneman *et al.* 1995). Collaboration in relation to work processes involving decision making and shared governance (O'May & Buchan 1999) also foster self growth and organizational development (Erickson, Hamilton, Jones & Ditomassi 2003) and enhance work effectiveness in health care environments by providing access to support and resources (Kutzscher, Sabiston, Laschinger & Nish 1997, O'May & Buchan 1999).

### *The Present Study*

Since many persons are involved in the care of an individual with autism, there is a need to know more about the context of the care and the collaborative work process in different residential arrangements. The purpose of this study was to contribute to the understanding of the staff's collaborative work during the care of an adolescent boy with autism, which in this study refers to the staff's pedagogical work together with their cognitive and emotional experiences of individuals acting as group members engaged in a collaborative process. The present study was initiated by the management of the Division of Social Work in a municipality in southern Sweden that wished to evaluate whether the sheltered housing situation provided for the boy was suitable.

### **Aim**

The aim of the study was to describe the staff's perceived experience of their collaborative work process for a period of three-and-a-half years, caring for an adolescent boy with autism and intellectual disability, living in community-based sheltered housing.

### **Methods**

The study was designed as a longitudinal single-case study (Yin 2003), implying that the same person was followed over time (Wang 1999). Data concerning the staff's work process during the boy's stay at his apartment was collected by means of the staff's daily notes in a common diary covering the period of December 1998 to May 2002 (1,241 days altogether). The purpose of the diary was to follow the staff's reflections on their teamwork. To obtain a reliable picture of the staff's work process and gather as much information as possible, an open diary approach was selected. A dated diary is a suitable method for exploring changes over time and gathering information covering a longer period, as time sequences become more visible (Burns & Grove 2001). Since an open diary also presupposes notes that are basically unstructured, no instructions were given on what to write in the diary.

Use of interviews was selected as well in order to obtain a description of the staff's perceived experiences as to be able to interpret the meaning of them as

accurately as possible (Kvale 1997, Polit & Hungler 1999) in this particular setting. Three years after the initial individual interviews, follow-up interviews, individual and focus group interviews were carried out to capture perceived changes over time. Focus groups were chosen as they enable a range of expressed views to be elicited (Hennink & Diamond 1999) to explore and clarify those views (Kitzinger 1995) as well as to verify the initial apprehensions (Gubrium & Holstein 2001, Kreuger, 1994).

#### *Data Collection*

To strengthen the connection between what the staff wrote in the diary and their actions in the daily care, repeated semistructured interviews were conducted. The first set of personal interviews was carried out (third author, BS) three months after the boy moved into his apartment and the follow-up interviews (first author, MH) three years later. In connection with the follow-up interviews, the staff were also interviewed by the first author in a focus group interview, conducted in the municipality administration building. The interview guide for the individual interviews had an approach involving broad topics and open-ended questions about the housing, the boy's learning milieu, and the staff's pedagogical work. Based on the experiences of the research team and the repeated individual interviews, a focus group guide was developed. During the individual interviews and the focus group interview (lasting for approximately one-and-a-half hours and two hours, respectively) probes were used and the interviews were audiotape recorded and transcribed verbatim, being cross-checked then by use of the tapes to ensure accuracy.

#### *Participants*

The boy's sheltered living was situated in a small municipality in southern Sweden, and he moved into an apartment of his own together with his caregivers when he was 13 years old. The caregivers consisted of a team of four members (two women and two men, 20–30 years of age), but a single member cared for the boy alone, one by one. All caregivers had an education to high school level together with certain courses in care at a basic level. One of them had taken university courses on mental handicaps, and another had experience earlier in working with persons with autism. None of the staff members had comprehensive education in working according to the TEACCH philosophy. The staff turnover during the investigation period was small. On weekdays the staff worked alone for 24 hours. They arrived in early afternoon when they received the boy from school, stayed with him for the evening and night and prepared him for departure to school the next day, before a new caregiver arrived after lunchtime. During the weekend the staff had even longer periods of 36 hours with the boy, and they worked approximately two weekends a month. The staff had 75% hours of duty and a rolling schedule involving maximum three working days in sequence, followed by one or more days off.

The housing program as well as the training at school was based on TEACCH and the intention was to work close to the TEACCH philosophy. Based on the boy's diagnosis and different tests the main focus in the work with the boy was to develop his pre-verbal language, using correct signs in his communication and to develop functional abilities such as independent eating, washing, dressing and undressing and toilet training. During the first six months the staff received regular work-related supervision from a therapist trained in the TEACCH pedagogy, in order to get relevant guidance and an opportunity to reflect on their daily work. The first year the staff group also had regular staff meeting, during two hours, once a week. The management was present every second week but by time the staff met without a member from the management. One cause of this development was the fact that during the period of investigation different management replaced each other as responsible for the setting.

### *Analysis*

The analysis of the diary and the interviews was inspired by Burnard's method of thematic content analysis (Burnard 1995, 1996). The content analysis method initially dealt with the objective, systematic description of the manifest content of a text, but over time the method has expanded to also include interpretation of latent content (Graneheim & Lundgren 2004). Berelson (1952) defined content analysis as a research ledger from the objective systematic and quantitative description of the manifest content of communication. From this a qualitative content analysis has been developed, aimed at interpreting the meaning of the content. Thematic content analysis can be used both manifestly (frequencies of codes) and latently (illuminating the meaning) by varying the depth and level of abstraction (Burnard 1995). This approach is in agreement with Neuman (1997), who discussed a systematic counting procedure to produce a quantitative description of the content in the text and the latent coding which looks for the underlying implicit meaning in the content of the text. Berg (2001) suggests that the best solution is to use both manifest and latent analysis whenever it is possible as it will provide more insight and meaningful findings.

The diary and the interviews were subjected to both manifest (descriptive frequencies) and latent (coding of significant meanings) content analysis (Burnard 1995, Boyatzis 1989) to describe the staff's daily work. The inductive process of manifest content analysis of the diary resulted in several categories covering and identifying all the content of the staff's notes by means of events, situations and reflections. For both the manifest and latent content analysis the process starts with understanding the text as a whole. The next step in the manifest content analysis of the diary was to condense the text into paragraphs and sentences by plotting data for each day throughout the 1,241 days. The latent coding of the diary was conducted by identifying meaning units which were categorized and merged into categories. The categories were compared and sorted according to the type of content. To identify patterns and detect changes in the staff's perceived experiences of the

work process over time a systematic comparison was made of the presence and change in meaning units assigned to different categories. This was made by manifest analysis of code frequencies through accurate counting procedure in which the proportion of statements within different categories was calculated to identify shifts in frequencies of categories over time.

Latent content analysis of the interviews was used to illuminate the underlying implicit meaning of the staff's experiences of their daily work. Initially, each interview was read as a whole by all authors. In a second phase the two authors (MH, KL) independently read the text to look for core meanings. This reading elucidated the staff's teamwork in day-to-day situations as well as positive and negative feelings in the staff's perceived experiences of their work. Thirdly, a more structural analysis was conducted where meaning units reflecting the staff's experiences were identified. Frequently-occurring meaning units that appeared to share the same content were subsequently categorized, compared and sorted by the two first authors. After this the first author re-read all the interviews to check that the categories suited the entire text. The authors referred to the transcript and the original tape recordings to remain close to the original meaning and context. Finally the categories were checked and discussed until agreement was achieved among all the authors.

Finally, in order to understand how the categories from the diary and the interviews informed each other, an overacting analysis was carried out by linking them to each other according to the time aspect. The findings were illustrated by quotations from both the diary and the interviews.

### *Ethical Considerations*

The staff and the management was asked for informed oral and written consent and they were fully informed of the aim of the study and the staff's rights regarding participating in or leaving the study. The study was approved by the Ethics Committee of the Medical Faculty at Lund University (LU 386-02).

### **Findings**

The findings concern results of the analysis of the staff's diary, as well as of both the individual and the focus group interviews. The findings are presented in relation to the actual year, for example "the first year" or termed as "the initial" and "end of" the assigned period. In the following text, identifiers in brackets relate to individual participants (number), abbreviation for diary (D), and interviews (I).

### *The Work Process*

The analysis showed that staff aspired to work in a team providing consistent and effective care for the boy. When the boy moved into his apartment goals were set by both the management and the staff. The major goal had been that the boy becomes as independent as possible in his activities due to the

TEACCH pedagogy. The staff endeavoured to clarify more specific goals and emphasized the importance of consensus and of continuing evaluation of their work. They tried to achieve their goals by maintaining a basic structure that applied to the work process generally.

The diary contained reflections on the boy's daily life and thoughts about how to handle their work as a team, but not directly connected with the goals decided upon. When the work-related supervision came to an end, the diary had increasingly become a way for keeping an open dialogue among the staff. They began to write notes to each other asking for advice related to how the other colleagues managed to improve specific activities. However, their questions often went unanswered. Difficulties in working according to the goals were expressed both in the diary and the interviews, and the staff gradually perceived that emphasizing the importance of goals was not enough. The staff stressed that the process of establishing structure in activities through consensus within the group was affected by the fact that the staff were not all working at the same hours. This made it difficult to cooperate, to plan and to evaluate the care they provided. Also, the different opinions among the staff members regarding the boy's potential, his resources and his ability to give them feedback seemed to affect the work process negatively. As can be noticed in Table 2 the first year was characterised by optimism, with the staff working toward existing goals, and mutual understanding between the boy and his caregivers appearing to be achieved. After the first year, however, progress slowed down, and the decrease in feedback from the boy and from the management, which corresponded to the staff's increased disappointment and frustration as stated in the interview, created insecurity on the part of the staff. The goals of their task were not re-examined, and there were disagreements within the group regarding their responsibilities. The care and the pedagogical work became unpredictable and unstructured and the staff showed resignation and continued to work without clear goals.

Three bipolar categories were identified and created to describe the work process during the period of investigation: (1) *Optimism–Resignation*; (2) *Trust–Mistrust*; (3) *Structure–Lack of structure*, all pertaining to the boy's development and stagnation (Table 1). The dichotomous structure of the categories is illustrated and exemplified by quotations from the diary or the interviews.

#### *(1) Optimism versus Resignation*

At the beginning of the data-sampling period the staff were optimistic and had high expectations concerning their possibilities to work as a team. The goals for their work had been formulated and the municipal administration had taken on responsibility for the boy's care and learning. After the first year, however, the staff members experienced a lack of support and began to feel a sense of resignation. During the first six months the staff had received supervision by a TEACCH therapist, but after that they had wanted to assume complete responsibility for the boy's care themselves. This was due to a conflict between the staff and the therapist concerning the staff's opinion



**Table 1.** Concordance between different types of data (diary, individual and focus group interviews) over time by presence of units of meanings assigned to categories (yes =  $\geq 80\%$  of statements assigned to demanded categories, no =  $\leq 20\%$  of statements assigned to demanded categories)

	Diary	Individual interviews		Focus group interviews
		First set	Follow up	
Bipolar categories				
Positive	yes	yes	no	no
Negative	yes	no	yes	yes
Pedagogical strategies				
Successful strategies	yes	yes	no	no
Unsuccessful strategies	yes	no	yes	yes

that the supervision session had focused on the wrong issues and a too rigid approach concerning how the TEACCH method should be taken to practice.

The following are examples of positive and of negative statements that were made:

- Optimism: “When we started we had so many ideas.” (I-4)  
 “We did a lot of things and he improved.” (I-1)
- Resignation: “Now it feels as though we were just going around in a circle.” (I-2)  
 “Nothing is happening.” (D-1)  
 “What’s best for him, how to know.” (I-4)  
 “We know him best, still it’s difficult.” (I-2)

## *(2) Trust versus Mistrust*

At the start, the staff felt secure regarding the employer’s involvement in keeping them supplied with the information they would need for their work and in acting as a service provider. The staff members also had trust in each other and in their ability to provide adequate care, in which pedagogical principles were applied. They expected their work to be evaluated and the goals they should follow to be revised. Later they questioned their own ability, that of their colleagues and the intention of the employer due to lack of leadership and evaluation of the staff’s work:

- Trust: “I have read through the plan.” (D-2)  
 “We haven’t set the goals too high.” (I-4)  
 “I think we are quite unanimous about what to do and we are given supervision.” (I-1)
- Mistrust: “Nobody seems to know what’s going to happen . . . there are the same goals we’ve had ever since we moved in, not a single new principle or rule has appeared in all these years.” (I-1)  
 “Things have to shape up; we’re being paid for this.” (I-3)

*(3) Structure versus Lack of Structure*

At the beginning, the staff placed demands on the boy and endeavoured to structure their work; there also being consensus among them about what they should do. They described later, however, how a lack of leadership, support and defined goals affected their work situation negatively. During the second year the staff wrote of difficulties in maintaining the structure in their work. This was explained in the interviews as being related to their perception of not being in full control of their work situation:

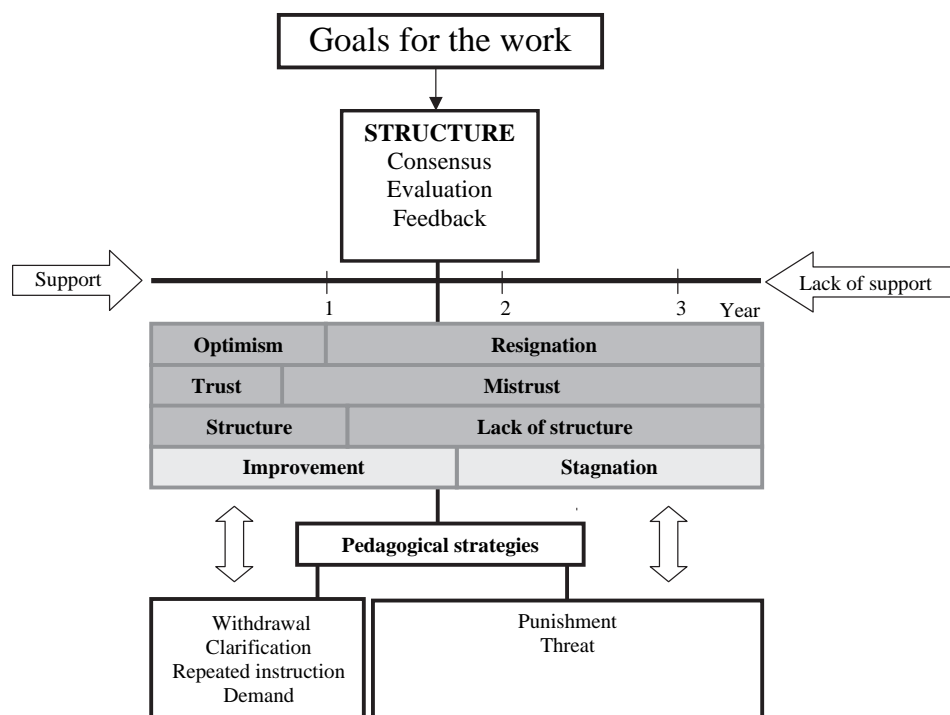
- Structure: "I hope everyone adheres to the goals we've set for our work." (I-4)  
 "It's important that everyone places the same demands on the boy."  
 (I-2)
- Lack of structure: "We're letting things go more and more." (I-4)  
 "I don't know whether all work in the same way; it's difficult  
 if not." (I-2)  
 "Please write how you succeeded with him at the dentist." (D-2)  
 "It was a catastrophe." (D-1)

After the first year the staff felt the boy's development was not in accordance with their expectations and understood that the causes of his lack of improvement were the staff's lonely and unsupported work situation.

*Pedagogical Strategies*

Disagreement among staff about how to cooperate, and the boy's potential to improve, seemed to be connected to the individual caregiver's struggle to do what they perceived to be the right thing in relative professional isolation. The staff tried to work at achieving their goals by means of *structure*, *consensus*, *evaluation* and *feedback* (Figure 1). Six different *pedagogical strategies* for maintaining these goals could be identified in the diary, which together with the interviews detailed ways in which the staff handled matters of their day-to-day life with the boy. The pedagogical strategies identified were *Withdrawal*, *Clarification*, *Repeated instruction*, *Demands*, *Threat* and *Punishment* (Figure 1).

Some strategies resulted in positive feedback from the boy, while others failed. The types of strategies listed indicate the range of different ways the staff had of approaching the boy. Each of the pedagogical strategies was used during the entire period of study. However, the frequency of notes on *Repeated instruction* and *Demands* was greater during the first half of the period, whereas notes on *Threat* and *Punishment* increased during the second period. *Repeated instruction* as a strategy for achieving structure involved the use of repetition until the boy understood, representing the principle, "*take it over and over again*" (D-3). This constituted an effort to increase his attention to his task. The staff used *Demands* when they wanted something from the boy, or wanted to encourage him to not give up, "*he's going to have to tidy up, I won't give in*" (I-1). Other supportive strategies were withdrawal and clarification. *Withdrawal* can be described as efforts by the staff to remain



**Figure 1.** Model showing how the staff's use of different pedagogical strategies was connected to the three bipolar categories describing the working process and showing the pedagogical goals, conditions, expectations and changes over time during the whole period.

passive or to physically withdraw so as to make the boy take the initiative, such as "*I just broke it off, then it was better*" (D-4). *Clarification* involved the effort to explain the rules for him or to give him firmer support, "*I told him, this is how we're always done it*" (I-1).

Lack of collaboration became more evident when the staff used supportive strategies to maintain a structure in their work and when the outcome (i.e. the long term effect for the boy's development) was not in focus. This was for example expressed in the focus group interview as "*it works for me to motivate him in this way, you can do whatever you want to*". In cases in which the staff used *Threats* or *Punishments* to obtain a goal, they failed to receive feedback from the boy just as much as when they used any of the supportive pedagogical strategies. A strategy involving a threat expressed during a meal, for example might be, "*I threatened to skip the ice cream for desert*" (I-3). The threat often concerned something the boy had been promised but was threatened with not receiving. Punishments when he failed to do something which was planned were not related to the actual situation in which the *punishment* occurred, such as "*the result was not getting any candy*" (D-2). When threats were used the boy became pacified, however, and seemed not to understand. It was noted several times that in such situations the boy did not protest, so that these strategies can be regarded as unsuccessful, since

they did not lead to the intended goal. As time went by, unsuccessful pedagogical strategies were used more and more. The diary conveyed an increasingly pessimistic view of the pedagogical conditions, quite in accordance with the negative expectations expressed in the follow-up interviews. The content manifest analysis of the diary and the interviews showed that the three bipolar categories identified in the staff's work process reflected their use of pedagogical strategies. During the first year, when the positive bipolar categories *Optimism*, *Trust* and *Structure* were dominant and the boy was improving in several skills, the staff used the pedagogical strategies of *Clarification*, *Repeated instruction*, *Withdrawal* and *Demands* to a considerable extent. After a year had gone by the negative bipolar categories of *Resignation*, *Mistrust* and *Lack of structure* began to dominate, the staff using increasingly the unsuccessful pedagogical strategies of *Threats* and *Punishment*.

During the initial period, the staff were supervised by a TEACCH therapist, an arrangement which they then chose to abandon. After the first year's work, characterized by optimism and high expectations, they gradually shifted to resignation and mistrust as the boy's development stagnated. According to the dated diary notes and the interviews, the different pedagogical strategies occurred at the same time as the bipolar categories describing the staff's feelings regarding their work and how they assessed the boy's development (Figure 1).

## Discussion

This paper provides information of a case history exploring staff perceptions of teamwork in the setting of community-based sheltered housing.

Since diaries and interviews involve observing indirectly, one can ask whether the notes and interviews regarding the staff's experiences reflected what actually happened. However, the high degree of concordance between the interviews and the diary (Table 1) strengthened the credibility of the results, as data from one source validate the data from another source (Burns & Grove 2001). Content analysis was chosen because it is suitable for capturing the meaning of human narratives concerning the life-world of those involved, to strengthen the conformability of a single researcher's interpretation. In the analysis here there were multiple researchers engaged in the process of interpretation, and citations from the original text are included to support the results.

In the present study causality is problematic, as relationships are suggested between team inputs, team processes and team outcomes (Lemieux-Charles & McGuire 2006), as well as relationships between categories; but these cannot strictly be explained with a qualitative method. However, since the interview data are reported in support of the time-allocated diary and because manifest content analysis produces a quantitative description of the content in the text (Neuman 1997), there are opportunities to explore how different phenomena coincide during the same period of time. The staff's recorded dates for different activities, events and reflections for each day in the diary facilitate

the counting of the number of units of meaning assigned to different categories from both the diary and the interviews. Relating back to specific dates in time means that the changes over time can be explored (Burns & Grove 2001). Advantages of this study included its longitudinal design, in combination with the chosen analysis method.

The systematic counting procedures of code frequencies (Neuman 1997), in which a proportion of the statements within different categories was calculated during the whole period, showed a gradual shift in proportions of statements within the categories (Table 2). This made it possible to show developmental change in the sequences of the staff's perceived experiences, despite the fact that data from the diary and the interviews was analysed at the end of the time period. Furthermore, carefully prepared occasions for the interviews made time sequences visible. During the study the diary gradually became a means of communication among the staff. The purpose of the investigation of the diary was to capture and follow the staff's reflections. However, it seems unlikely that the staff's other uses of the diary compromised the findings, as their questions to each other appear to reflect their thoughts and experiences of their work.

It was found that in the start period the work process was strongly influenced by ambitions and specific goals and the staff's desire to work in a structured way, which also was reflected in their pedagogical efforts. They perceived themselves as a team and conducted their work in a positive way in terms of the boy's wellbeing. However, without a common view, which is necessary for successful teamwork (Wicke, Copping & Payne 2004, O'May & Buchan 1999), and knowledge of what to do, it became impossible to cooperate in order to achieve the specific goals, as effective teamworking implies a sharing of goals and collaborative work (Vanclay 1997, Henneman, Lee & Cohen 1995). The staff's ability to work as a team and the degree of

**Table 2.** Gradual shifts of proportions of statements within categories in the diary in relation to time periods.

	Positive (+) Negative (—)	Categories	Year 0–1	Year 1–2	Year 2–3.5*
Bipolar categories	+	Optimism	87	32	43
	—	Resignation	23	52	46
	+	Trust	38	7	13
	—	Mistrust	29	43	56
	+	Structure	112	32	39
	—	Lack of Structure	31	40	37
Pedagogical strategies		Withdrawal	31	19	22
	Successful	Clarification	53	37	26
		Repeated instruction	28	21	19
		Demand	23	17	14
	Unsuccessful	Punishment	7	15	13
		Threat	0	8	15

\*The last period, Year 2–3.5, is six months longer than the other periods.

support from management are factors contributing to the failure or success of teams (Lemieux-Charles & McGuire 2006). In time the staff lost sight of their goals and worked without much structure or continuity, which is in opposition to common knowledge about these children's need of structured environment (Van Bourgondien & Mesibov 1989, Verheij & Van Doorn 1990).

The staff's awareness of their engagement in a collaborative problem solving process (Hyldergard 2006) seemed to result in stress and resignation when their work did not have positive outcomes, such as relevant and sufficient care and treatment (Henneman, Lee & Cohen 1995) of the boy. The staff seemed unaware of how their feelings regarding their working situation and their lack of ability to work as a team, resulting in a different way of dealing with situations, could affect the boy's immediate feedback and long term development. However, even though the staff's sense of resignation started before the boy's stagnation did, it is not completely clear that his lack of improvement (Hübel, Linder & Sivberg 2006) was due to their feelings about their work and their choice of strategies, since it could also be a reflection of this adolescent boy's normal fluctuations in development. The staff's choice of negative strategies could either be a result of the boy's stagnation or maybe one cause of his lack of improvement, or both. Despite the optimism and trust found at the beginning, the staff came gradually to describe their task more and more as one that was impossible to perform.

This is in line with Fallon (1983), who showed the empathetic feelings of the staff in such a situation gradually change to feelings of frustration and anger. Similar feelings of disappointment and mistrust as well as experiences of insecurity were explained in the last interviews, expressed as not being in control of the work. Cohen and Bailey (1997) state the importance of team effectiveness for the group member's satisfaction and willingness to work together. When mistrust was expressed at the end of the period it seemed mainly associated with the staff's work situation, i.e. they did not experience that the outcome of their work corresponded to their expectations. Some strategies seemed to be used when the staff felt a sense of resignation and mistrust. These changes in the work process over time were reflected in the staff's notes, their work strategies being identifiable as either successful or unsuccessful strategies in relation to the feedback from the boy. Not unexpectedly, threat and punishment were used more frequently when the staff felt abandoned. By using unstructured and non-functional strategies in situations that might otherwise have resulted in positive feedback from the boy, the staff missed opportunities for improving the boy's skills. It is notable that the most successful strategies, such as those of repeated instructions and demands, were used more during the first year when the staff felt optimistic and supported. Perhaps these strategies were difficult to carry out later because they required carefully prepared pedagogical interventions.

At the beginning, withdrawal resulted in encouraging the boy when he was passive, but after the first year the boy's response to the use of withdrawal changed into a negative one. Hattersley and Champion (2000) have pointed out that caregivers' use of withdrawal can be a positive strategy through its helping to maintain appropriate behaviour in the child, as withdrawal from

the child has the effect of reducing challenging behaviour. If the staff used withdrawal as a distancing strategy without cooperation and carefully prepared goals, this would mean they were working intuitively. In the present case, therefore, even if the staff did not coordinate their work, the strategy they chose could sometimes be successful, so that the boy reacted with positive feedback. The staff's inconsistent ways of handling situations and their tendency to work intuitively are in line with the significant finding that the staff individually tried to provide qualitative care for the boy and the fact that the work process gradually was characterized of lack of collaboration.

When supervision came to an end, in accordance with the wishes of the staff, their work became less coordinated and more individual. The care also became influenced to a greater extent by the staff's experiences of strategies that they used with their own children. Unfortunately the management, perhaps because of unclear leadership, accepted the staff's view that they knew the boy's needs best. The management avoided replacing the therapist and allowed the staff to reject supervision and work independently without supervision on the assumption that external evaluation was carried out. The staff here were not prepared for such a demanding task and they became inconsequent concerning their need for support as well as expert knowledge and instructions from management (Moore & Dugger 1995). Work processes involving teamwork that is implemented without introduction will fail without continued support, education, adjustment and evaluation (O'May & Buchan 1999). In this case the staff already after the first year realized the difficulties involved and questioned their own capacity, despite not wanting the supervision offered them, and the fact that they wanted more thorough knowledge of autism, as well as support to enable them to better understand the boy. The findings showed that the staff team in this isolated work situation did not have the necessary resources and conditions to work collaboratively, and to be a highly functional team (Poulton & West 1999) that produces effective outcomes (Cohen & Bailey 1997), in terms of giving the adolescent boy opportunities to improve skills and abilities.

## **Conclusion**

A number of difficulties concerning teamwork in community-based sheltered housing are clearly discernible in this study, both in the work process and concerning the pedagogical strategies involved. The collaborative work process was negatively affected by a lack of distinct, appropriately updated and adequately evaluated goals. Disagreement among staff, which made it difficult for them to collaborate and establish a joint structure in their work and a consensus regarding what the content of their pedagogical activities should be, was noted. Collaborative work has to be organized due to the management's awareness of the nature of the staff's advanced work tasks, their responsibilities as professionals and their need for professional supervision. Additionally, much effort is needed to recruit and train suitable staff able to work as a team dealing effectively with the serious challenges involved.

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