

Upper secondary school students' perceptions of teacher socialization practices and reports of school adjustment

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Running headline: Perceptions of teacher socialization practices and reports of school adjustment

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Abstract

Lack of adjustment or school failure is of concern to educators, child welfare workers, educational and school psychologists as well as parents, but there are few studies on this aspect of education, especially among late adolescents. Furthermore, there is a lack of research on teachers as socialization agents as an independent variable in adolescents' school adjustment. The present study was conducted as a survey and aimed to explore how upper secondary school students' perceptions of teacher socialization practices were related to improved motivation for continued education, school alienation, intention to quit school, truancy and class absence. The sample consisted of Norwegian adolescents aged 15-18 years ($n = 564$) in various vocational and general educational courses. The results revealed that perceptions of teacher socialization practices accounted for unique variances in school adjustment. Of the teacher socialization variables, academic support best explained variances in school adjustment.

Résumé

Le manque d'adaptation scolaire ou l'échec scolaire sont une des préoccupations des éducateurs, des travailleurs sociaux dans le cadre de la protection de l'enfance, des pédagogues et psychologues scolaires, et des parents. Néanmoins cet aspect de l'expérience éducative est peu étudié, en particulier parmi les grands adolescents. On manque en outre de travaux de recherche sur les enseignants en tant qu'agents socialisants, comme variable indépendante de l'adaptation scolaire des adolescents. L'étude présente a été menée sous forme de questionnaire, et elle a eu pour objet d'explorer comment les perceptions par les élèves du deuxième cycle du secondaire de la pratique de socialisation professionnelle des

enseignants étaient liées à l'amélioration de la motivation pour une formation continue, l'aliénation scolaire, l'intention de quitter l'école, l'absentéisme scolaire et l'absence aux cours. L'échantillon consistait en adolescents norvégiens de 15 à 18 ans ($n = 564$) venant de différents cours de formation professionnelle et d'enseignement général. Les résultats ont révélé que les perceptions de la pratique de socialisation professionnelle des enseignants faisaient apparaître des écarts remarquables dans l'adaptation scolaire. Parmi les variables de socialisation professionnelle des enseignants, le soutien universitaire était la variable de socialisation qui expliquait le mieux les écarts d'adaptation scolaire.

Keywords: School adjustment; late adolescents; teacher socialization; upper secondary school

Introduction

School is a powerful institution in the everyday and future lives of adolescents in most industrialized countries, and lack of adjustment or school failure is of concern to educators, child welfare workers, educational and school psychologists as well as parents (Anderson, Hamilton, & Hattie, 2004; Croninger & Lee, 2001; Gilligan, 1998). Problems include drop out, reduced motivation, increased class absence, truancy, and alienation (Attwood & Croll, 2006; Otis, Grouzet, & Pelletier, 2005; Rumberger & Thomas, 2000; Shoho & Petrisky, 1996; Statistics Norway, 2008). Moreover, although it is important to identify factors that promote school adjustment (Gregory & Weinstein, 2004), there are few studies on this aspect of education, especially among late adolescents (Spencer, 1999; Zimmer-Gembeck, Chipuer, Hanisch, Creed, & McGregor, 2006). Thus the present study explored school adjustment in late adolescence.

The aim of the study was to contribute to filling the research gap by exploring late adolescent students' reports of school adjustment in relation to their perceptions of teacher

support (emotional and academic), behavioural monitoring and psychological control, as well as the degree to which these associations were moderated by gender. Theory and research in the field of family socialization have argued that healthy development is maximized in contexts in which individuals are positively supported, exposed to regulating behavioural forces and have their psychological autonomy strengthened (Barber, 1997a; Barber & Olsen, 1997). The relationships with teachers are among the most salient and influential in students' lives (Pianta, 1992, 1999) and teachers play an important role in creating the learning environment (Levin & Nolan, 1996; Levy, Crèton, & Wubbels, 1993; Wubbels, Crèton, & Hermans, 1993). Theoretical models developed to explain how teachers promote student behaviour and attitudes (e.g. self-determination theory) are quite similar to family socialization models, and empirical findings are beginning to provide support for these models (Bru, Stephens, & Torsheim, 2002; Deci & Ryan, 1985; Deci, Vallerand, Pelletier, & Ryan, 1991; Eccles, Early, Fraser, Belansky, & McCarthy, 1997; Ryan & Powelson, 1991; Thuen, 2007). Therefore, despite the fact that researchers have demonstrated that teachers can provide key socialization experiences, the importance of each of these various experiences as indicators of different kinds of development is not known and more research is needed (Barber & Olsen, 2004; Eccles et al., 1997). Moreover, research indicates that female students are more successful at school than their male counterparts, e.g. score higher on school related intrinsic motivation and have a lower likelihood of drop out (Ekstrom, Goertz, Pollack, & Rock, 1986; Freudenthaler, Spinath, & Neubauer, 2008; Markussen & Sandberg, 2005; Markussen, Sandberg, Lødding, & Frøseth, 2008). Gender differences have been reported in the socialization literature, and teachers typically state that they have more conflicts and less positive relationships with boys than with girls (Baker, 2006; Furrer & Skinner, 2003; Hamre & Pianta, 2001). It has also been suggested that teacher support is more important to girls than to boys (Goodenow, 1993a). Previous research on different kinds of support seeking

behaviour has indicated that girls seek out, prefer and are more open to emotional support, while boys seek out, prefer and are more open to instrumental support (Wilson et al., 1999). In present context, instrumental support is analogous to academic support. Whether these gender differences mediate a variation in school outcomes is not known.

School adjustment is a broad construct with multiple facets (Berndt & Keefe, 1995, 1996). It has generally been narrowly defined in terms of academic progress or achievement, which leads to the search for restricted determinants or associations, e.g., socialization of academic skills (Birch & Ladd, 1996). However, researchers have argued that involvement in schooling is decisive to successful outcome (Finn, 1989; Goodenow, 1993b; Goodenow & Grady, 1993). Thus the present study addresses important behavioural and emotional aspects of students' involvement in schooling, where school adjustment is defined as a concept including: (a) students' intentions of dropping out, (b) class absence, (c) truancy, (d) changes in motivational orientation towards further schooling, and (e) alienation from school.

Teachers as socializers of school adjustment

This study focuses on critical dimensions of teacher socialization: support (emotional and academic), monitoring and autonomy granting.

Emotional support refers to approval and an explicitly caring manner. Close and supportive relationships with teachers are assumed to help students to feel connected to and have positive feelings about teachers and school in general (Barber & Olsen, 1997; Roeser, Midgley, & Urdan, 1996). The level of support provided by a teacher is likely to affect the level to which he/she is able to influence student behaviour and attitudes. Children tend to internalize positive school-related values and goals in a developmental context characterized by warmth and care, such as that provided by a positive teacher (Wentzel, 2002). In contrast, in contexts where persons feel disconnected or unrelated to significant others, they are at risk

of norm breaking behaviour, alienation and likely negative outcomes (Ryan & Powelson, 1991). Previous research has indicated that students who feel emotionally supported by their teachers are more likely to experience social and emotional adjustment (Murray & Greenberg, 2000), positive motivational orientation (Hamre & Pianta, 2001; Wentzel, 1997), a sense of control, autonomy, and engagement in school (Furrer & Skinner, 2003; Ryan, Stiller, & Lynch, 1994; Zimmer-Gembeck et al., 2006) as well as the meaningfulness of schoolwork (Thuen & Bru, 2000). Research on middle and secondary schools indicates that high emotional support scores are associated with less misbehaviour and fewer discipline problems (Bru et al., 2002; Murdock, 1999; Thuen & Bru, 2000; Thuen, Bru, & Ogden, 2007). However, another study reported no associations between teacher emotional support and class absence or class skipping among secondary school students (Miller, 2000). Teachers might be less frequently constitute sources of emotional support as children grow older, because such needs are then better met by others, e.g. romantic partners or friends (Furman & Buhrmester, 1992). The role of emotionally supportive teachers in late adolescence may have less of an impact on students than in their early school years. As children mature into late adolescence, they may have acquired definite beliefs, attitudes and motivational sets regarding schooling, which can somewhat “neutralize” the influence of teachers. Thus for most students, school adjustment can be understood as a developmental process that started several years before they entered upper secondary school (cf Finn, 1989; Rumberger, 1987). Therefore in this study a measure of academic support was included in addition to emotional support. Teachers who support their students academically help them to perform well and to recognize a good performance (Bru et al., 2002). One can argue that academic support highlights the quality of the teaching, which may differ somewhat from teacher socialization practices. However, a teacher’s ability to teach well is an important factor in establishing a positive relationship with students (Thuen et al.). Research has also indicated that upper secondary school teachers

mainly exert their influence by, among other things, providing constructive feedback to students (academic support) (Legault, Green-Demers, & Pellitier, 2006). Task demands tend to increase with age, thus at this period of life students may form relationships with teachers that are functionally related to the task of schooling, thus hence academic rather than emotional in nature. Moreover, such support is likely to influence achievement and grades, it is also assumed to motivate students to succeed instead of becoming frustrated and withdrawn, too involved in off-task activities, developing emotional distress, alienation from school or emotional and behavioural problems (Evertson & Emmer, 1982; Roeser, Eccles, & Sameroff, 1998; Thuen et al., 2007).

Teachers' monitoring is here understood as adequate rules and behavioural regulation at school and during breaks. Previous research indicates that successful teachers carefully monitor schoolwork and behaviour (Thuen, 2007). The degree of teacher monitoring is assumed to influence self-regulation, impulsivity, risk-taking and openness to influence from other sources (Barber, 1997b). Furthermore, according to self-determination theory, a developmentally appropriate amount of structure, including clear rules and consistent expectations, will foster adolescent strategies and capacities to perform well (Connell, 1990), thereby boosting competence (Deci & Ryan, 1985, 2000). Empirical findings suggest that the more confident adolescents are about their general level of competence, the more likely they are to engage in various aspects of school (Caraway & Tucker, 2003). Findings among younger adolescents have also revealed associations between teacher monitoring and student engagement, academic achievement, less academic alienation and lower levels of problem behaviour (although to varying degrees) (Bru et al., 2002; Eccles et al., 1997). Some people prefer teachers who are dominant, while others like them to be less strict, but to high a degree control-oriented regulation has been revealed to have negative consequences (Skinner & Belmont, 1993). For example, many studies over recent decades have demonstrated that social

contexts that monitor in a coercive, pressurised and authoritarian way undermine positive development (Miller, 2000). However, during the adolescent period monitoring by teachers may decrease as the late adolescent has probably developed self-regulative skills.

Teachers' autonomy granting refers to the amount of freedom a student is given to determine his/her behaviour at school and is understood as teachers who empower students to participate in rule-setting and school activities. Individuals are likely to function better in institutional settings that facilitate self-direction (Barber, 2002). This view is supported by self-determination theory that holds that if teachers allow opportunities for decision making and participation, students are more likely to successfully adjust to school and vice versa (Deci & Ryan, 2000; Deci et al., 1991). Mid and late adolescents in particular may value teachers who promote democratic and respectful interaction (Pelletier, Fortier, Vallerand, & Brière, 2001; Zimmer-Gembeck & Locke, 2007). Lack of choice in the classroom seems to undermine motivation and desirable behaviour, leading to disengagement and withdrawal, while autonomy granting appears to be beneficial for motivation and engagement (Deci & Ryan, 2000; Eccles et al., 1997; Reeve, Jang, Carrell, Jeon, & Barch, 2004). Literature on autonomy granting has, however, been somewhat eclipsed by that on teacher control (Bru et al., 2002), thus the associations with autonomy granting are less clear.

The purpose of the study was to fill the research gap by exploring late adolescent students' reports of school adjustment in relation to their perceptions of teachers support, behavioural monitoring and psychological control, as well as the degree to which these associations were moderated by the students' gender. Overall, there have been few studies of older adolescents, so it is unclear whether teachers remain important socialization agents in upper secondary school (Zimmer-Gembeck et al., 2006).

Method

Sample

The total sample comprised 272 boys and 288 girls ($n= 564$, four students did not indicate their gender) from one upper-secondary school in western Norway. The questionnaire was distributed to the 15 to 18 year old students three months after the start of the 2004-2005 school year. The response rate was 75.4 %. Twelve respondents were excluded due to missing data. With the exception of attendance (absence) data, which was provided by the school at the end of the school year, all data are based on adolescent reports.

School adjustment measures

The improved motivation for continued education scale ($\alpha = 0.90$) measured students' perceptions of whether their school experiences in the previous year had had a positive influence on their motivation to continue their schooling. The scale had five items. Responses were coded so that high scores indicate a high level of positive motivation. *The school alienation* scale ($\alpha = 0.89$) consisted of three items and measured students' perception of whether their school experiences in the previous year had had a negative impact of their desire to continue their schooling. This variable seems to reflect students' perception of social inclusion in school. Responses were coded so that the more alienation reported by the student, the higher the score. The scale on *intention to quit school* scale included three items ($\alpha = 0.73$) and the stronger the intention to quit school, the higher the score. All three scales had a four-step scoring format with the following response alternatives: 'disagree strongly', 'disagree a little', 'agree a little' and 'agree strongly'. The factor solution for items assessing school adjustment, established by confirmatory factor analyses, is documented in previous research (Studsrød & Bru, Submitted). See Table 1 for wording and items. *Truancy* was assessed by one question regarding how often the student played truant. The response alternatives were: 'never', 'seldom', 'sometimes' and 'often'. Information about *single-class*

absences during the previous school year was provided by the school administration and revealed the number of lessons that students had been missed in addition to whole school days.

Teacher socialization measures

Students' perceptions of teacher-socialization practices were assessed by slightly modified versions of scales that were previously tested and developed (Bru et al., 2002; Thuen & Bru, 2000). Bru (2002) documented acceptable construct validity for the scales by using a combination of explorative and confirmative factor analyses. In addition to methodological considerations, the questions were formulated in a manner that referred to all teachers who taught the class in order to protect their privacy and to ensure that they did not refuse to allow their class to take part in the survey. All questions regarding perceived socialization had the following four-step scoring format: 'disagree strongly', 'disagree a little', 'agree a little', and 'agree strongly'. The *teachers' emotional support* scale ($\alpha = 0.83$) consisted of five items and measured the affection and trust shown by teachers. The *teachers' academic support* scale ($\alpha = 0.85$) consisted of seven items that measured pedagogical support from teachers, whereas the *teachers' autonomy-granting* scale ($\alpha = 0.81$) comprised five items that assessed the amount of student influence. The *teachers' monitoring* scale ($\alpha = 0.81$) consisted of three items on the number of clear rules and adequate feedback on rule-breaking. Responses were coded so that high scores indicate a high level of teacher support, monitoring and autonomy-granting. See Appendix for further item descriptions and factor loadings.

Control and grouping variables

Gender, course of study, self-selected course of study, grade in Norwegian and family financial situation were included as control variables. As demonstrated previously, some gender and age differences have been reported in the literature. In the present study males were given the value 1 and females 2. *Course of study* was included because previous research indicates that the quality of school experience as well as drop out rates vary according to the type of course, i.e. academic, non-academic or vocational (Markussen et al., 2008; Schneider, Csikszentmihalyi, & Knauth, 1995). In the present study a *general educational course* was assigned the value 1 and a *vocational course* 2. It has been suggested that if students want to study something else, this moderates the influence of contextual factors and leads to maladaptive behaviour at school (Koerhuis, 2007). We therefore included one question about whether the course of study was self elected: 'I myself wanted to attend this particular course of study'. Achievement scores are associated with school adjustment (Luyten, Bosker, Dekkers, & Derks, 2003; Marks, 2007; Rumberger & Thomas, 2000) as well as perceptions of teachers, thus the analyses included prior academic achievement, measured as the grade in Norwegian. Research shows that the socio-economic backgrounds of students is associated with a range of school related outcomes (e.g. Ekstrom et al., 1986; Hægeland, Kirkebøen, Raaum, & Salvane, 2004; Rumberger, 1987) and it may also influence the perceptions of teachers. Therefore the *family financial situation* was included and based on one item measuring the student's perception of his/her family economic situation in relation to that of other Norwegian families. The adolescents indicated the degree of agreement with the item using a four-point scale, scored in such a way that higher scores indicated a better family economic situation.

Procedures

Approval for the study was obtained from the Data Inspectorate of Norway (2004), and ethical considerations were taken into account. Each class and student was assigned a code number by the school. These lists were available to the school administration but not the researchers. The student code number made it possible to link class absence data to each student. The school administration did not have access to the data files. To avoid students influencing each other's responses, the questionnaires were administered, to the greatest extent possible, at the same time for each class in the school. However, some exceptions were made in order to maximize class participation.

Missing data were handled by assigning to a missing item the mean score for the other items in each sub-scale completed by the student in question. The percentages of missing data were low, on average 1.8% and less than 4% for any item. Twelve respondents with over 30% for one or more of the scales employed were excluded from the sample.

The selected statistical tools were product moment correlations, exploratory factor analysis, variance component analysis and multivariate GLM analysis. All statistical analyses were conducted using SPSS (Norusis, 2002). GLM analysis was chosen because this approach allows analyses of several dependent variables simultaneously and thus also estimation of multivariate associations between them and the independent variables. The GLM assigns partial Eta as a measure of effect size.

Results

The present study aimed to explore associations between students' perceptions of teacher socialization practices and their reports of school adjustment. Students' ratings of school-adjustment measures are presented in detail in Table 1.

Insert Table 1 about here

Overall, the results revealed that most students tended to agree (a little and strongly) with the questions measuring perceptions of improved motivation for continued education, although a number of them opted for the second lowest scoring alternative. A majority of the students tended to report strong disagreement with the questions assessing school alienation, although almost two out of ten agreed (a little and strongly) with most items on school alienation.

Around 8% strongly agreed with most items assessing intention to quit school. Approximately six out of ten reported playing truant. Absence reported by the school followed a similar pattern, with most students missing classes.

Insert Table 2 about here

Table 2 provides descriptive information about perceived teacher-socialization practices. A majority of the students tended to opt for the two most positive response alternatives on the teacher-socialization scales, except for teachers' autonomy-granting, where there were approximately as many negative (the two most negative response alternatives) as positive scores. The scale assessing teachers' monitoring had the highest mean score, while that evaluating teacher autonomy-granting had the lowest.

Insert Table 3 about here

Table 3 presents bivariate correlations among all dependent variables as well as between the dependent and control variables included in the study. All school adjustment factors were significantly related to each other, with correlations ranging from modest to strong. The relationships between school-adjustment factors and control variables were more mixed. Roughly speaking, self-selected course of study and grade in Norwegian were significantly correlated with all of the dependent variables. Students in vocational courses, as well as younger students, tended to have higher scores for improved motivation to continue education and less frequent truancy. Gender was not significantly related to any of the school-adjustment variables. The family financial situation was significantly and negatively related to intention to quit school and truancy.

Insert Table 4 about here

Table 4 presents Pearson Product moment coefficients of correlations between teacher socialization variables and independent variables. The teacher socialization variables had several, mostly strong, significant positive correlations with each other, ranging from $r = 0.29$, $p < 0.01$ for the association between monitoring and autonomy granting to $r = 0.62$, $p < 0.01$ for the link between academic and emotional support. The socialization variables also showed statistically significant associations with most of the school adjustment measures. All school adjustment variables had significant associations with teachers' academic and emotional support, ranging from relatively modest to strong. Autonomy granting also had statistically significant associations (although relatively modest) with the outcome variables, except for

class absence. Teachers' monitoring showed significant associations with improved motivation and school alienation.

Insert Table 5 about here

As can be seen in Table 5, teacher socialization variables explained unique and significant levels of variance in all of the school adjustment measures. Socialization variables explained most variances in improved motivation for continued education (15.2%), followed by school alienation (8.1%). Socialization variables explained relatively modest amounts of variance in class absence (1.7%), intention to quit (3%) and truancy (4%). When investigating the associations between each of the socialization dimensions and school adjustment as well as when controlling for the effect of all independent variables, only teachers' academic support revealed a statistically significant multivariate association. High academic support scores were significantly associated with high scores for improved motivation to continue education and low scores for school alienation, intention to quit school, truancy and class absence. Moreover, despite the fact that the other socialization variables had no significant multivariate associations, the analyses revealed a tendency among students who reported that their teachers granted autonomy, were emotionally supportive and provided a high level of monitoring to also have higher scores for improved motivation to continue their education.

Most control variables showed significant multivariate associations with school adjustment. Roughly speaking, the findings indicated better school adjustment among younger students, students with higher grades in Norwegian and students attending a self elected course. Students in vocational courses showed a significant, albeit relatively modest, tendency to have higher scores on improved motivation and intention to quit school.

We also explored whether the impact of socialization practises on school adjustment depended on the student's gender. The results revealed no significant associations in this respect.

The measurement of truancy was at ordinal level, and in parametric analyses the inclusion of such a variable can lead to erroneous results. Parametric analyses for this variable were therefore followed by non-parametric correlations (Spearman correlations) and the results corresponded well. Thus there were no indications that the measurement level of truancy significantly affected the results.

Discussion

One purpose of this study was to assess school adjustment in upper secondary school. While the majority of the students had positive adjustment scores, most students had played truant and between 5% and 10 % reported being alienated or had considered dropping out, which is a reason for some concern. In this way the findings are in accordance with previous results indicating school adjustment problems among adolescents (Attwood & Croll, 2006; Otis et al., 2005; Rumberger & Thomas, 2000; Shoho & Petrisky, 1996; Statistics Norway, 2008).

The main purpose was to explore how reports of school adjustment among late adolescents are related to how students perceive their teachers as socialization agents. The results revealed that the majority of students had high scores on perceived teacher socialization, with the exception of teachers' autonomy granting, where there were approximately as many negative as positive scores. On the whole, this indicates that the students' experiences of their teachers are positive. Moreover, the scale for perceived monitoring by teachers had the highest mean score, while that assessing teacher autonomy-granting had the lowest. Thus the findings seem to be in accordance with previous research

showing that most teachers use controlling strategies more than autonomy supportive strategies (cf Reeve et al., 2004, report several findings on this topic).

When exploring the associations between socialization variables and school adjustment variables, the results revealed that perceived teacher socialization variables accounted for unique amounts of variances in all five aspects of school adjustment, but that the effect sizes were relatively small for class absence, intention to quit school and truancy (1.7%, 3% and 4%, respectively). Teacher socialization practices explained more of the variances in improved motivation and school alienation (15.2% and 8.1%, respectively). The findings therefore suggest that the role of teachers is relatively significant in relation to enhancing motivation for continued education and preventing school alienation, which is in accordance with previous research (Galbo, 1984; Legault et al., 2006; Skinner & Belmont, 1993; Wentzel, 2002). On the other hand, the teacher seems to have little impact when it comes to class absence, intention to quit school and truancy.

The present study aimed at exploring the importance of students' perceptions of different aspects of teacher socialization for school adjustment. In accordance with previous research suggesting that, compared to middle school teachers, upper secondary school teachers mainly exert influence through academic support (Legault et al., 2006), our results indicate that perceived academic support from teachers is the socialization aspect that has the greatest influence on student school adjustment. In line with research among younger students (Bru et al., 2002; Goodenow, 1993a; Roeser et al., 1998; Ryan et al., 1994; Thuen & Bru, 2000; Zimmer-Gembeck et al., 2006), results from this study indicate that a high level of perceived academic support from teachers is associated with improved motivation for continued education. Moreover, high academic support scores were also associated with low scores for school alienation, truancy, intention to quit school and class absence (although the latter three were associations relatively moderate). This is in accordance with previous

research suggesting that students who perceive their teachers as supportive are more likely to make sustained efforts instead of becoming frustrated and withdrawing or engaging in off-task activities and thus less likely to experience alienation from school (Evertson & Emmer, 1982; Furrer & Skinner, 2003; Roeser et al., 1998; Thuen et al., 2007).

The findings revealed no significant multivariate associations of teachers' autonomy granting, monitoring and emotional support with the dependent variables when analysed simultaneously. Although, several significant (but relatively modest) bivariate correlations were found (table 4) for associations with improved motivation for continued education, findings give limited support to theoretical notions and previous research among younger students indicating that autonomy granting, behavioural monitoring and emotional support is important for school adjustment (Barber, 1997a; Deci & Ryan, 1985, 2000; Eccles et al., 1997; Reeve et al., 2004; Roeser et al., 1998; Thuen & Bru, 2000). Our results suggest that teachers' autonomy granting, behavioural monitoring and emotional support are of relatively low importance for school adjustment among upper secondary school students. It is reasonable to assume that the variations are relatively modest because students enter upper secondary school with certain predispositions about school that stem from prior experiences in school and prior experiences of relationships with teachers. For most students, school adjustment can be understood as a developmental process starting in compulsory school (cf Finn, 1989; Rumberger, 1987). The findings may also reflect the fact that older adolescents are often more self-regulatory or self-disciplined, which suggests internal motivation for their behaviour. This may make teacher socialization practice less important in relation to school adjustment among older adolescents. However, it is likely that adequate emotional support, autonomy granting and behavioural monitoring are necessary for good academic support. Previous research has, for example, shown that liking one's teachers appears to be related to the quality of teaching (Lightbody & Siann, 1996). The results also indicate that the associations between

perceived emotional support and school adjustment are likely to be reciprocal and difficult to study in a cross-sectional design.

The results revealed no significant gender differences in school adjustment measures, which to some extent do not support previous research indicating that female students are more successful at school compared to their male counterparts (Ekstrom et al., 1986; Freudenthaler et al., 2008; Markussen & Sandberg, 2005; Markussen et al., 2008). Similarly, no differences in perceived teacher socialization perceptions were observed. It appears appropriate to highlight the significant and relatively strong multivariate associations between school adjustment and course of study, year of schooling, self-selected course of study and grade in Norwegian (see Table 5). The associations between these control variables and school adjustment variables were stronger than those between socialization variables, implying that factors other than teacher socialization practices are salient in school adjustment among this age group. Roughly speaking, the results indicated better adjustment among younger students, students attending a self-selected course of study and students earning better grades. These factors are somewhat beyond the influence of teachers but seem to be relatively important.

Finally, some methodological limitations of the present study must be acknowledged. All data were collected at a single point in time, thus we cannot infer that perceived teacher socialization preceded and thus may be causally related to differences in school adjustment. One should bear in mind that the results may also reflect the fact that well adjusted students have more positive perceptions of teacher's socialization variables. In order to adequately address these questions, further studies with more powerful designs are required, e.g. experimental or longitudinal designs, to identify causal effects and directions. The present study mainly relied on students' perceptions of their learning context. This design was based on the assumption that individual student constructions of meanings are important mediators

between the actual school context and these students' school related feelings and actions (Roeser & Eccles, 1998; Schunk, 1992). Ryan and Grolnick (1986) hold that it is rather the functional meaning of the environment rather than the environment per se that is of concern when investigating motivation and behaviour. That said research with other data collection methods is needed to validate the findings. In addition, measures of socialization practices refer to teachers in general. Since upper secondary-school students often have numerous teachers in different subjects throughout the day and students' perceptions of different teachers may differ, this approach has some limitations. However, it is advantageous for our purpose, since the overall perception of teachers is probably more relevant than the relationship with individual teachers when exploring general school attitudes and attendance behaviours as in the present study. Moreover, the study used a sample from only one school. However, between school differences in student performance tend to be low in the Scandinavian countries (Marks, 2006). Recent studies suggest that students' perceptions of their learning environment and behaviour vary more within than between schools (Anderman, 2002; Bru et al., 2002). Nevertheless, generalizations should be made with caution.

Conclusion and practical implications

The aim of this research was to explore reports of school adjustment among late adolescents in relation to how teachers as socialization agents satisfy students' needs for support as well as behavioural and psychological control. Although the majority of the students indicated good school adjustment, the number reporting truancy, alienation as well as drop out intentions gives grounds for some concern. Moreover, the findings indicate that students perceive appropriate levels of emotional and academic support as well as behavioural monitoring in their relationships with their teachers.

The present findings underline the importance of academic support among this age group, and making teachers aware of the significance of this type of support. Even though the findings may not totally disregard the other socialization dimensions, they call into question the justification for understanding school adjustment as a process of teacher socialization. Thus our results raise doubts about the extent to which it is possible for teachers to have a substantial influence on school adjustment through socialization practices alone. Given the associations between school adjustment and the control variables, the results suggest that in educational policy and planning, teacher interventions aimed at improving school adjustment among this age group should only form one part of a multi-faceted approach.

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Table 1 Percentage distribution for responses on school adjustment items, and mean scores and standard deviations for responses to school adjustment items and scales

	<i>Disagree strongly</i>	<i>Disagree a little</i>	<i>Agree a little</i>	<i>Agree strongly</i>	<i>M</i>	<i>SD</i>	<i>Scoring range</i>
					2.67	0.73	
<i>Improved motivation for continued education</i>							
During this school year I have become more motivated in terms of school	12.9%	35.5%	37.5%	14.2%	2.53	0.89	1-4
This school year has increased my understanding of the importance of education	8.4%	22.6%	48.8%	20.1%	2.81	0.85	1-4
This school year has motivated me to learn more	9.5%	24.8%	50.2%	15.5%	2.72	0.84	1-4
This school year has stimulated my desire for more schooling	12.5%	31.9%	41.7%	13.9%	2.57	0.88	1-4
This school year has improved my confidence in believing that I can do well in school	10.8%	28.4%	44.1%	16.7%	2.67	0.89	1-4
					1.72	0.77	
<i>School alienation</i>							
This school year made me realize that I don't fit in at school.	55.9%	30.7%	10.3%	3.1%	1.61	0.80	1-4
This school year made me want to discontinue my schooling	42.1%	34.5%	5.6%	7.7%	1.67	0.83	1-4
This school year made me realize that school is not for me	52.4%	32.7%	10.9%	4.0%	1.89	0.94	1-4
					1.70	0.78	
<i>Intention to quit school</i>							
If I could, I would have dropped out of school	55.5%	23.1%	13.7%	7.7%	1.74	0.97	1-4
I would rather work than go to school	42.5%	23.5%	18.9%	15.1%	2.06	1.10	1-4
I consider quitting school	76.1%	15.1%	6.5%	2.3%	1.35	0.71	1-4
				Weekly			
<i>Truancy</i>							
How often do you play truant?	Never	Seldom	Sometimes				
	41.8%	33.6%	21%	3.6%	0.86	0.87	0-3
<i>Class absence</i>							
	None	0-5%	5-10%	>10%			
	4.9%	80.2%	12.6%	2.2%	29.42	30.33	0-1140

Table 2 Percentage distribution, scoring range, mean scores and standard deviations for responses to scales measuring teacher-socialization

	<i>Disagree strongly</i>	<i>Disagree a little</i>	<i>Agree a little</i>	<i>Agree strongly</i>	<i>M</i>	<i>SD</i>	<i>Scoring range</i>
<i>Teacher emotional support</i>	6.1%	24.6%	49.2%	20.1%	2.76	0.62	1-4
<i>Teacher academic support</i>	3.8%	19.3%	54.1%	22.9%	2.87	0.55	1-4
<i>Teacher monitoring</i>	3.9%	18.6%	43.8%	33.6%	2.99	0.69	1-4
<i>Teacher autonomy-granting</i>	10.2%	40.0%	41.4%	8.4%	2.49	0.62	1.4

Note. Disagree strongly: Index score in the low ¼ of scoring range.
 Disagree a little: Index score in the middle low ¼ of scoring range.
 Agree a little: Index score in the middle high ¼ of scoring range.
 Agree strongly: Index score in the high ¼ of scoring range.

Table 3 Pearson product moment coefficients for correlations of scores between dependent variables and between dependent and control variables.

	1	2	3	4	5	6	7	8	9	10
Improved motivation										
1. for continued education										
2. School alienation	-0.49**									
3. Intention to quit school	-0.40**	0.50**								
4. Truancy	-0.30**	0.25**	0.29**							
5. Class absence	-0.19**	0.22**	0.27**	0.50**						
6. Gender	0.02	-0.07	-0.04	0.05	0.03					
7. Course of study	0.28**	-0.02	0.06	-0.13**	-0.04	-0.03				
8. Year of schooling	-0.27**	0.15	0.07	0.20**	0.05	0.05	-0.20**			
9. Self-selected course of study	0.26**	-0.18**	-0.16**	-0.22**	-0.20**	0.06	0.23**	0.04		
10. Grade in Norwegian	0.09*	-0.18**	-0.14**	-0.20**	-0.26**	0.17**	-0.09*	-0.06	-0.08	
11. Family financial situation	0.08	-0.07	-0.11*	-0.10**	-0.10*	0.01	-0.06	-0.03	0.10*	0.02

Note.*p<0.05; **p<0.01

Table 4 Pearson Product moment coefficients of correlation between socialization variables and between socialization variables and school adjustment variables

	Teachers' academic support	Teachers' autonomy granting	Teachers' monitoring	Teachers' emotional support
Teachers' academic support				
Teachers' autonomy granting	0.48**			
Teachers' monitoring	0.44**	0.29**		
Teachers' emotional support	0.62**	0.52**	0.35**	
Improved motivation for continued education	0.47**	0.39**	0.30**	0.40**
School alienation	-0.33**	-0.16**	-0.16***	-0.20**
Intention to quit school	-0.20**	-0.14**	-0.08	-0.15**
Truancy	0.27**	-0.16**	-0.06	-0.22**
Class absence	-0.16**	-0.08	-0.08	-0.11**

Note.*p<0.05; **p<0.01

Perceptions of teacher socialization practices and reports of school adjustment

Table 5 Results from multivariate GLM (Partial Eta) for associations between school adjustment factors, teacher-socialization variables and control variables

	<i>Multivariate</i>	<i>Improved motivation for continued education</i>	<i>School alienation</i>	<i>Intention to quit school</i>	<i>Truancy</i>	<i>Class Absence</i>
<i>Control variables</i>						
Gender	0.11	0.03	-0.03	-0.03	0.04	0.03
Course of study	0.22**	0.10*	-0.07	0.13**	-0.06	-0.03
Year of schooling	0.28**	-0.23**	0.13**	0.09*	0.17**	0.02
Self-selected course of study	0.24**	0.18**	-0.13**	-0.13**	-0.15**	-0.15**
Grade in Norwegian	0.30**	0.08	-0.16**	-0.10*	-0.21**	-0.26**
Family financial situation	0.10	0.04	0.02	0.06	0.09	0.05
<i>Teacher socialization variables</i>						
Teachers' academic support	0.25**	0.19**	-0.20**	-0.09*	-0.11*	-0.10*
Teachers' autonomy granting	0.13	0.12*	-0.01	-0.04	-0.00	-0.00
Teachers' monitoring	0.11	0.09*	-0.03	-0.00	-0.06	-0.03
Teachers' emotional support	0.12	0.09*	-0.02	-0.04	-0.08	-0.00
<i>Variance accounted for in dependent variables</i>		0.347	0.173	0.95	0.182	0.127
Unique R ² for teacher socialization variables		0.152	0.081	0.03	0.04	0.017

Note. *p<0.05; **p<0.01

Appendix Factor loadings for items, as well Cronbach's alphas for the different subscales assessing teachers' socialization variables

	Factor 1	Factor 2	Factor 3	Factor 4
Teachers' academic support				
The teachers are good at organizing lessons	0.78			
The lessons seem well- prepared	0.77			
The teachers instruct in a way that makes its easy to understand	0.76			
The teachers are good at giving examples that help me to understand the subject content	0.53			
When we do group work the teachers explain things well	0.53			
I think it is difficult to understand when the teachers explain	0.52			
When I work on my own, the teachers explain things well	0.44			
Teachers' autonomy granting				
I am allowed to participate in shaping my workday at school		0.80		
I participate in decisions regarding which work tasks I should have		0.77		
I participate in decisions regarding the working methods I intend to use		0.77		
The students are involved in formulating the school rules		0.69		
It is worthwhile to make suggestions about how things should be in class		0.61		
Teachers' monitoring				
There are clear rules for our behaviour toward each other			0.89	
There are clear rules for behaviour during breaks			0.83	
There are clear rules for behaviour during lessons			0.74	

Perceptions of teacher socialization practices and reports of school adjustment

Continued

	Factor 1	Factor 2	Factor 3	Factor 4
Teachers' emotional support				
The teachers help me if I have problems				0.84
I feel that the teachers care about me				0.82
I can trust my teachers				0.67
I feel my teachers value me				0.66
The teachers know what interests I have				0.64
<i>Eigenvalues</i>	7.33	1.89	1.56	1.24
% of variance explained (Total variance explained 60.13)	36.66	9.45	7.80	6.22
Cronbach's α	0.85	0.81	0.81	0.83