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Article

Are Adolescents in One-Parent Families a Previously Unnoticed Group in Inclusive Career Guidance?

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Abstract

In Germany, schools are largely responsible for adolescents' career development. Corresponding interventions in career guidance must take into account various endogenous and exogenous factors of individualized development to foster successful post-school transitions. Parents, in particular, are one of the most significant influencing factors when it comes to shaping after-school plans usually having a highly positive effect along with teacher support. Children in one-parent families constitute a group that has received little attention so far in the context of career guidance analysis. They are at a higher risk of social decline into precarious circumstances and of living in families with lower education levels as well as less parental care time. In addition, one-parent families more often report that they are unable to adequately support their children concerning career development, ultimately impacting the children's post-school transition. Based on the theoretical model of career competence, a sample from eight German schools (N = 1998) is used to investigate to what extent adolescents in one-parent families differ from their peers in other family compositions regarding both support and development of career competence. Each school's location and teacher support are included in the calculations. This study shows that adolescents in one-parent families display below-average levels concerning three of the analysed facets (occupational knowledge, exploration, and self-regulation).

Keywords

adolescents; career competence; career education; multiple linear regression; one-parent family; risk group

Issue

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1. Introduction

Educational careers are significantly influenced by socio-demographic and socio-economic factors (OECD, 2016). The disadvantages of students with a low socio-economic status, migration background, and/or under-educated parents are especially significant in Germany (Albert et al., 2019; Hadjar, 2011; Klieme et al., 2010). The effects of one's upbringing and origins can also be observed in adolescents' post-school transitions (Beicht & Walden, 2019), career decisions, and other determi-

nants of their career development, like cultural background (Solga & Wagner, 2001) or gender (Driesel-Lange & Ohlemann, 2019). Independently from their background, all adolescents need to acquire career-related skills to successfully navigate and manage their careers (Driesel-Lange et al., 2020).

In Germany, schools and the *Arbeitsagentur* (federal employment agencies) are legally tasked with supporting adolescents in acquiring career-related skills as well as in their post-school transition (Deeken & Butz, 2010). Career education and learning is

therefore a central task of all German secondary schools (Kultusministerkonferenz [KMK], 2017). Although research has shown that students differ in their career development and, hence, in their needs for support (Ohlemann & Driesel-Lange, 2018), career guidance is rarely tailored to these individual needs.

With this in mind, this article takes a closer look at parental influence, as parents as a group vary just as much as adolescents. The authors seek to clarify how different family constellations affect the development of career competence and what conclusions might be drawn. In this context, it must be pointed out that children in one-parent families as a group have received little attention in career education and guidance research so far. They are at a higher risk of social decline into precarious circumstances and of living in families with lower education levels and less parental care time (Bartels & Stockhausen, 2017). In the next step, we study the effects of teacher support on students from different family compositions to derive relevant support mechanisms in schools.

2. German Educational System and Career Guidance

2.1. German Educational System

In Germany, schooling begins at the age of six (or just about). All children in Germany start with *Grundschule* (primary school) which usually lasts four years (grades one through four). Exceptions here are the federal states of Berlin and Brandenburg, where primary school usually lasts six years (until grade six). After *Grundschule*, secondary education begins. Basically, there are three types

of schools—*Hauptschule*, *Realschule*, and *Gymnasium*—as well as schools that combine two or three types of schools under one roof. These are usually called *Gesamtschulen*. Depending on the type of school, either a vocational track or a higher education track is typically favoured: Very roughly speaking, the German *Hauptschule* goes up to grade nine or ten with a focus on a vocational track; the German *Realschule* goes up to grade ten with a focus on a vocational track; the *Gymnasium* goes up to grade 12 or 13 with a focus on a higher education track. The *Gesamtschule* is a comprehensive school form combining different tracks and may go up to grade 13. However, as an example, students who attend a *Gymnasium* and pursue a higher education track also have the opportunity to pursue a vocational track after the ninth or tenth grade. In principle, compulsory education begins at the start of *Grundschule*. From here on, all children are educated full-time until the end of the first phase of secondary school (nine years). After that, the obligation to attend school full-time ends, because there are opportunities for vocational training within the vocational track. Choosing this track means that young people spend part of their time at school and the rest of their time at work. Upon reaching the age of majority, all forms of compulsory schooling end (cf. Eurydice, 2021–2022). An illustration of the German education system can be found in Figure 1.

2.2. Career Guidance in Germany

In Germany, the preparation of the transition from school to work is linked to the goal of enabling all students to develop their careers in a self-determined

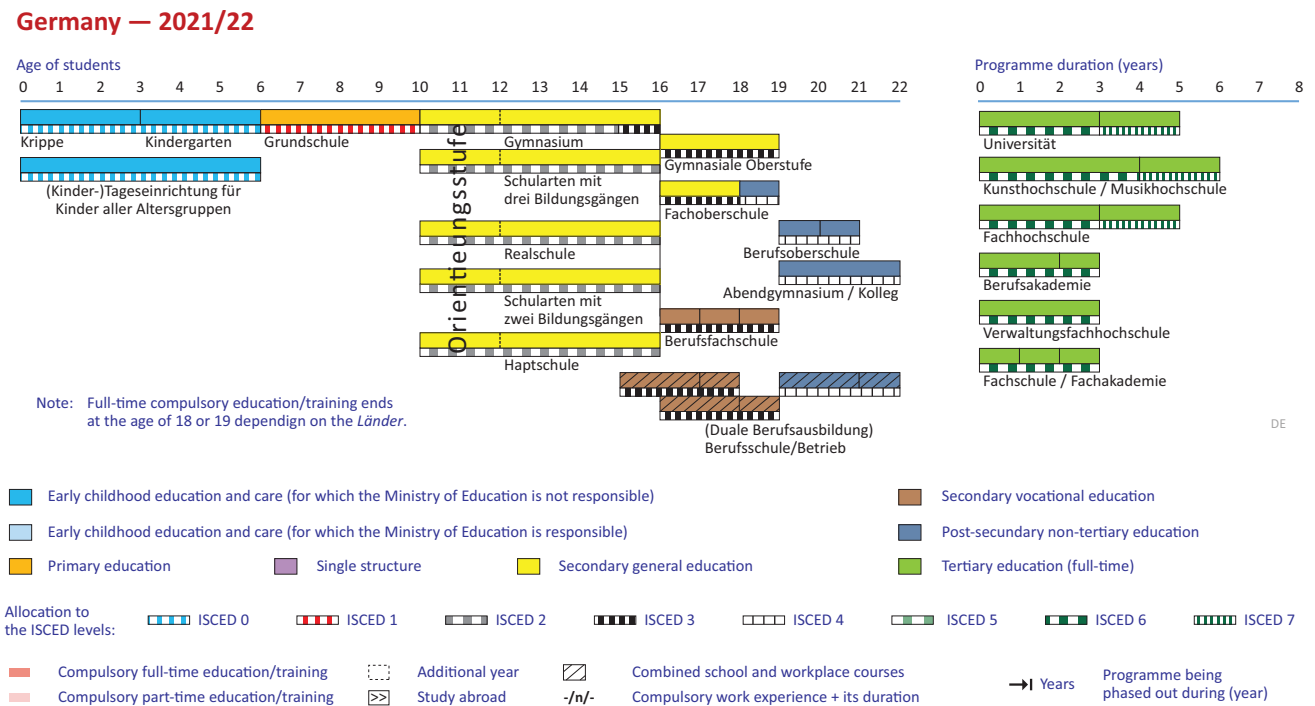


Figure 1. Structure of the national education system. Source: Eurydice (2021–2022).

manner and to shape them successfully in the long term. Career guidance can be seen as a highly relevant educational task, as it addresses the successful long-term participation of citizens in the labour force and society overall. As you can see above, in Germany the educational system offers many opportunities to decide on a career during but also after school. It is possible to decide at a very young age, after grade nine (in the age of 15), to do vocational training and to work at least part-time in a business. At the same time, it is possible to stay in school until the age of 19, for example, to start studying. In this case, entry into the workforce would be further delayed by the years of study. Nevertheless, adolescents need information and support during their school years in order to anticipate this process.

In this regard, both the schools themselves and the employment agencies have a special responsibility. According to the latest resolutions of the Standing Conference of the Ministers of Education and Cultural Affairs of the States in the Federal Republic of Germany (KMK, 2017), all secondary schools are generally required to offer a program over a period of several years from grade seven onward, providing individual career guidance and support. During this process, adolescents are required to examine their aspirations and wishes as well as prospects and opportunities. Based on their interests, skills, and individual potential, students are challenged to shape their career choice process on their own and to make well-founded decisions that are not based on stereotypical attributions. They are supposed to receive advice and support on various steps along the way—with the help of extracurricular partners. Ultimately, the goal is to have adolescents compare their own professional interests and opportunities with the requirements and conditions of the world of work (KMK, 2017).

3. Theoretical Background

Developing relevant career competence (Driesel-Lange et al., 2020) and one's own occupational identity (Fend, 1991) as well as planning and fleshing out the transition to post-school educational options represent central tasks of career guidance for adolescents. Career decisions are influenced by a multitude of endogenous and exogenous factors, the career development process itself (cf. Ohlemann, 2021), and the acquisition of career-related competences and resources (Driesel-Lange et al., 2020; Hirschi et al., 2018).

3.1. Career Competence Development in Adolescence

Concerning lifelong career development (Savickas, 2012), adolescents must develop competences and resources enabling them to shape their own career in the long term. Definitions of career competences set out by both Defillippi and Arthur (1994) and Kuijpers and Scheerens (2006) place these skills in close relation to career development as an adult and overall career success. Building

on these definitions and the concepts of career self-management (King, 2004), boundaryless careers (Arthur, 1994; Defillippi & Arthur, 1994), protean careers (Briscoe & Hall, 2006; Hall, 1996), and human capital (Fugate et al., 2004), models such as the career competences model of Akkermans et al. (2013) or the career resources model of Hirschi et al. (2018) specify these capabilities. There are also sociological theories that use for example external factors and effects of origin to explain career choice and the transition between school and the labour market. These include Bourdieu's (1982, 1987) theory and Roberts' (2009) opportunity structure theory. In simple terms, both theories assume that later career choices are strongly influenced by external factors (e.g., origin and parental home). The authors of this article also refer to external factors to find out how strong their influence is on the acquisition of career-related competences. However, the starting point here is the individual, in particular the individual acquisition of competences.

Most of the aforementioned models refer to adults who are already employed. However, adolescents can only draw on limited experiences during their first career choice and the related post-school transition. For adolescents, it is not the organization or the world of work, but rather the schools that constitute the referential context for their career development. To successfully manage this first career choice, they require other career competences, such as the development of a career self-concept or implementation strategies (Driesel-Lange et al., 2020; Savickas et al., 2018). At the same time, the implementation of career guidance varies so much depending on the school system (Schröder, 2020) that the school context is rarely considered in theoretical models. The career competence model by Driesel-Lange et al. (2020) constitutes an exception explicitly taking the school context as well as post-school transitional competences and developmental needs into account.

The model by Driesel-Lange et al. (2020) describes career-related development as an individual process during which adolescents acquire various competences within the dimensions of knowledge, motivation, and action. As can be seen from Figure 2, each dimension consists of four facets. The knowledge dimension includes self-knowledge, occupational knowledge (i.e., knowledge about the world of work and/or specific occupations), knowledge of prerequisites, and planning knowledge. The motivation dimension includes career concern, career control, career curiosity (i.e., willingness to remain open to new career opportunities and alternatives), and career confidence. The action dimension includes exploration, self-regulation, problem-solving, and stress management. In this context, exploration refers to the concrete action of finding information about one's own interests, job profiles, and educational paths. Self-regulation refers to the ability to manage career goals by consciously setting goals and monitoring and planning their implementation (Driesel-Lange et al., 2010).

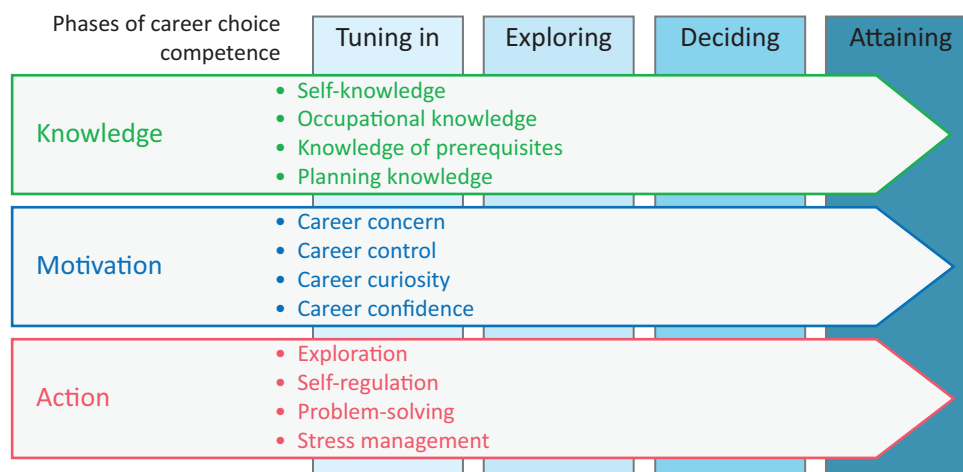


Figure 2. Career competence model. Source: Driesel-Lange et al. (2020).

In addition to these competences, the model outlines four phases describing different stages in which adolescents find themselves. These include tuning in, exploring, deciding, and attaining. In the first phase (tuning in), the focus lies on the preparedness to plan one’s future. This phase is followed by various concrete experiences (exploring) in the world of work, such as an internship or a targeted search for information about a job. In the third phase (deciding), the adolescent makes a concrete decision about his or her post-school educational path. In the last phase (attaining), the students begin actively preparing the transition. Overall, this model combines both phase-typical aspects and competence-related implications. It has been contextually integrated into the school environment and operationalized for the needs of schools (Kaak et al., 2013). Further, the underlying assumption that there is little connection between an adolescent’s individual development and their age/year of birth has been shown in different studies (Ohlemann, 2021). That is one argument why it is so important to look at the individual and then consider external factors. Our study builds on the career competence model by Driesel-Lange et al. (2020).

4. Current Research

4.1. Heterogeneity in the Career Development of Adolescents

Adolescents differ in their individual prerequisites, their social, financial, and educational resources, as well as their starting points and developmental progress. These differences give rise to a diverse range of needs in terms of support for the respective individual career choice process (Ohlemann, 2021).

Regarding the exogenous factor of cultural background, adolescents with migration backgrounds bear a higher risk of remaining without occupational qualification. Further, the importance of parental opinion regarding the individual career choice differs among

students from different cultural backgrounds (Solga & Wagner, 2001). Regarding the endogenous factor of gender, studies have shown that girls in Germany start their career choice process earlier than boys do and explore their options more thoroughly. However, they also face higher insecurity regarding their career decisions (Driesel-Lange & Ohlemann, 2019). Driesel-Lange and Kracke (2017) observed different levels of career competence among students in grade nine. Moreover, Ohlemann and Driesel-Lange (2018) identified different groups with different competence levels or profiles. Ohlemann (2021) has argued that a path toward individualized career education can take place through internal differentiation. These heterogeneous factors enable us to identify individual groups and make specific needs visible.

4.2. Social support in Career Development

Parents represent another important factor in the life of every adolescent. They play an important role in their children’s overall development as well as in their career choice process and their career success later in life.

Heckman and Mosso (2014) found that children’s cognitive and social-emotional development are influenced by the time spent with their parents. In addition, the parent’s income and educational background have a significant impact. Higher parental income and better-qualified parents are associated with better schooling (Heckman & Mosso, 2014), access to higher education (Kracke et al., 2018), and the children themselves having a higher income later in life (Bartels & Stockhausen, 2017; Jäntti & Jenkins, 2015). We see that many factors have an impact on a person’s success over the course of their life. Further, a positive relation between adolescents’ explorational behavior, their satisfaction with their transition to university, and perceived parental support can be observed (Dietrich et al., 2011). The higher the perceived support from parents and teachers, the more extensively students explore their career options, the higher their self-efficacy, and the more systematically they plan

their next career-related steps (Mayhack & Kracke, 2010). Dietrich and Kracke (2009) found a negative association between parents' interference and a lack of engagement, respectively, and adolescents' decision-making abilities.

In addition, we know that social status, demographic conditions, and the social environment shape and influence a person's actions. This can be seen, among other things, in Bourdieu's (1982, 1987) concept of habitus, which manifests itself in three types of capital: economic, social, and cultural. If a person does not have sufficient access to each type of capital potential disadvantages may arise. Of course, this also applies to adolescents and their development.

As mentioned above, parents and the overall family structure play a crucial role. We know that families exist in all colours and shapes, so it is important to look at different constellations and starting points. This should not be done by reproducing stereotypes, but by identifying potential needs more precisely. We also know that individualized and needs-based career education leads to better results in the transition from school to vocational training or higher education. Special attention should therefore be paid to one-parent families with a focus on analysing if children in these settings require specific types of support. In this context, schools could play an important, compensatory role.

We know that one-parent families represent a growing group in Germany (Statistisches Bundesamt, 2018). From 1996 to 2017, for example, the number of one-parent families with at least one underage child increased from 13.8% to 18.9%. It ought to be added that most single parents in Germany are mothers, single fathers as primary caregivers only make up a small portion (Statistisches Bundesamt, 2018). We also know that one-parent families in Germany demonstrate a higher risk of poverty and, as a consequence, are at a higher risk of becoming part of the societal precariat (Bahle et al., 2013; Bartels & Stockhausen, 2017; Statistisches Bundesamt, 2018). About 40% of children in one-parent families were considered as "living in poverty" in 2012. As a comparison, the overall poverty risk in Germany lies at approximately 14% (Bartels & Stockhausen, 2017). Bahle et al. (2013) showed that the risk of one-parent families drifting into a precarious situation can be observed across Europe. Parents from lower socio-economic backgrounds find it more difficult to support their children in their career choice process (Institut für Demoskopie Allensbach, 2014). Their children also more often choose to pursue vocational training rather than go to university (Kracke et al., 2018). In contrast, 71% of adolescents from higher social strata choose a university degree (Albert et al., 2019)—and during their transition to university, they benefit from their parents' respective knowledge and experience (Kracke et al., 2018).

In terms of their children's career choice processes, one-parent families rate their own ability to support their children as insufficient almost twice as often as parents do in general (Institut für Demoskopie Allensbach,

2014). This is partly due to the fact that single parents can spend less time with their children because of the multitude of tasks they must accomplish on their own (Bartels & Stockhausen, 2017). At the same time, children in one-parent families often feel less prepared regarding their career decisions compared to their peers living in other family constellations (Institut für Demoskopie Allensbach, 2014). This means we observe a perceived lack of support on both sides in one-parent families. Therefore, it is highly surprising that children in one-parent families have received little targeted attention in the context of career education so far.

4.3. *The Crucial Role of Teacher Support*

Several studies have shown that teacher support positively influences students' development with regard to different facets of career competence (Driesel-Lange et al., 2021). In addition to an increase in self-efficacy and planning, Schindler (2012) found a positive relation between higher perceived support from teachers and students' career-related feelings of security. Over time, the informational and emotional support provided by teachers has a particularly positive influence on the cognitive dimension of career competence (Driesel-Lange et al., 2018). The development of career competence is also influenced by social support adolescents receive from parents, peers, and teachers during their career choice process (Driesel-Lange et al., 2018). This also shows that in Germany school is a relevant starting point to counteract potential disadvantages students may face in terms of career development. Therefore, it is important to look at different target groups and identify their needs more precisely.

As can be seen from the theoretical implications and the current state of research, successful career guidance and education depends on many exogenous and endogenous factors. Moreover, career competences are crucial for successful school-to-school or school-to-work transitions, satisfaction later in life, etc. In Germany, it is a public political and strategic goal to support adolescents in their career development thus enabling them to make a proactive, informed, and independent career choice (KMK, 2017). The development of career-related competences is a crucial aspect of this process. In addition, we have seen that parents play an important supporting role (in the same way as teachers do). As has been pointed out, it is striking that families with only one main parent have received little attention so far. Placing special research focus on one-parent families promises to be particularly beneficial as (a) many single parents themselves state they are unable to support their children adequately in their career development and (b) children in these family constellations more frequently display feelings of insecurity with regard to their career decisions. In addition, it ought to be reiterated that these families are more likely to face financial difficulties with far-reaching consequences for children's career development.

5. Research Questions and Hypotheses

With this study, we aim to add to the existing knowledge on career development, in particular the development of career-related competences of adolescents in one-parent families in comparison to other family constellations. Our research question focuses on how students vary in their career competence development as well as their perceptions of parental and teacher support depending on the composition of their family.

Based on the findings discussed above, we have formulated the following hypotheses:

H1: Parental support is positively correlated with adolescents' developmental status of career competence.

H2: Adolescents in one-parent families receive less (perceived) parental support in everyday school life.

In Germany, career education mainly takes place in secondary schools. Hence, students are likely to perceive career-related activities and challenges as part of their school life. Therefore, if they are asked about parental support regarding school matters, it can be deduced that their answers include career-related matters as well:

H3: Living in one-parent households predicts a lower level of career competence among adolescents.

H4: Higher perceived teacher support predicts a higher level of career competence among adolescents.

6. Methodology

6.1. Participants

Adolescents (1098 female, 900 male) ranging from ages 12 to 22 ($M = 16.4$, $SD = 1.65$, grade eight to 13) who were enrolled in one of eight secondary schools (two *Hauptschulen*, three *Gesamtschulen*, and four *Gymnasien*) in North Rhine-Westphalia, Germany, participated in the underlying survey: 49.9% exclusively spoke German at home and 50.1% spoke another language (in addition to German); 609 respondents (30.1%) were enrolled in a school in a neighborhood to be considered "privileged" or "well-to-do," while 1416 respondents (69.9%) were enrolled in a school in an "underprivileged" or "underserved" neighbourhood. The status of a school is related to the socioeconomic status of the neighbourhood. "Underserved" schools are in a neighbourhood with low socioeconomic status. The basis for the identification of the status "privileged" and "underprivileged" are data of the federal state North Rhine-Westphalia, which give the "social status" of the neighbourhood via social points (income rate of the neighbourhood, migration share, and employment rate; see Isaac, 2011). Further, 328 respondents (16.2%) lived

in one-parent families, 1498 respondents (74%) lived with both parents, 130 respondents (6.4%) lived in blended families (i.e., one parent and their partner), and 70 respondents (3.5%) had other living arrangements. Please notice that, due to rounding, we reach 100.1% here. Due to the heterogeneity of reasons, the last group was excluded from this study.

6.2. Measures

Career competence was measured with 38 items (7-point Likert-scale) using items from the standardized diagnostic questionnaire of career competence (Kaak et al., 2013). This questionnaire is based on the theoretical model of career competence by Driesel-Lange et al. (2020). Table 1 provides an overview of the corresponding facets with their respective means, standard deviations, and Cronbach's alpha as well as an example item.

Four items of the TIMSS 2015 study (Wendt et al., 2017), were used to determine the interest of parents in their children's school life (e.g., "My parents ask me what I'm currently doing in school") and thus to identify potential *parental support*. Students reported on a 5-point Likert scale from 1 (*never/nearly never*) to 5 (*every day/nearly every day*). The internal consistency estimate (alpha) for the scores in this study was .79 ($n = 1977$, $M = 3.56$, $SD = 1.19$).

Students rated the support provided by teachers (7-point Likert scale) by answering a modified version of Schindler's (2012) scale by Driesel-Lange et al. (2018). For example, *teacher support* was operationalized by statements such as "In my class, we often talk about topics that affect our time after school" or "most of my teachers support me in finding my strength." The internal consistency estimate (alpha) was found to be .92 ($n = 1998$, $M = 3.99$, $SD = 1.37$).

6.3. Procedures

The tablet-based survey took place in January 2019 during regular class hours at the respective schools. Students' participation was voluntary and they received a small gift (e.g., candy, chocolate bars) at the end of the survey. We conducted our analyses in four steps. After examining the descriptive values, we proceeded using bivariate correlations between the career competence scales and parental support. Next, an analysis of variance (ANOVA) with the family constellation constituting the independent variable and parental support constituting the dependent variable was used to examine group differences via Hochberg's GT2 post-hoc tests (Field, 2018). After that, we applied a three-step hierarchical procedure to test our third and fourth hypotheses regarding the prediction of career competence. Following Field (2009, 2018), we conducted bootstrapped multiple linear regressions with the facets of career competence as dependent variables. Analyses were conducted using SPSS (version 25).

Table 1. Means, standard deviations, Cronbach's alpha of all scales.

Scale (N Items)	Example item	<i>M</i>	<i>SD</i>	α
Self-knowledge (3)	I can accurately assess my abilities.	5.24	1.19	.76
Occupational knowledge (3)	I know how vocational training programs or academic studies are organized.	4.09	1.53	.89
Knowledge of prerequisites (3)	I know exactly how to prepare for my future job.	4.53	1.63	.89
Planning knowledge (2)	For the time being, I have set clear goals in order to move closer to starting my career.	4.16	1.67	.80
Career concern (3)	It is important for me to clarify which professions I am suited for.	5.83	1.23	.88
Career control (3)	I am already thinking about what I want to be.	5.01	1.41	.88
Career curiosity (4)	I enjoy exploring new professions.	4.62	1.43	.68
Career confidence (4)	How much do you trust yourself to describe what your dream job should look like.	4.50	1.26	.83
Exploration (3)	How often have you purposefully asked several people in the last few months for information about occupations and training opportunities.	3.68	1.69	.88
Self-regulation (3)	If something that I wanted to do goes wrong, I want to find out the reasons.	4.70	1.40	.78
Problem-solving (3)	I trust myself to find a solution if I were to suddenly drop in my school performance.	5.22	1.28	.88
Stress management (3)	Thinking about my future profession is a burden for me.	4.50	1.46	.81
Teacher Support (10)	Most of my teachers support me in finding out what my strength is.	3.99	1.37	.92
Parental support (4)	My parents ask me what I'm currently doing in school.	3.57	1.19	.82

7. Results

7.1. Parental Support is Positively Correlated With Adolescents' Developmental Status of Career Competence

The bivariate *correlations* among parental support and teacher support as well as the twelve career competence

facets are reported in Table 2. All facets of career competence are significantly associated with the two scales of support. Although these effects are comparatively small (Cohen, 1988), our first hypothesis about a positive correlation between parental support and adolescents' career competence is validated. A positive correlation can be observed between the described career competence facets and perceived support. Adolescents who feel

Table 2. Correlations of the career competence facets with parental and teacher support.

	Parental support	Teacher support
Self-knowledge	.128***	.096***
Occupational knowledge	.034*	.109***
Knowledge of prerequisites	.093***	.138***
Planning knowledge	.105***	.162***
Career concern	.114***	.103***
Career control	.170***	.205***
Career curiosity	.113***	.188***
Career confidence	.123***	.151***
Exploration	.080***	.143***
Self-regulation	.211***	.159***
Problem-solving	.125***	.149***
Stress management	.061***	.042***

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

supported by their parents or teachers also have higher scores in the career competence facets and vice versa.

7.2. Adolescents in One-Parent Families Receive Less (Perceived) Parental Support in Everyday School Life

The calculated ANOVA revealed a highly significant overall effect of the family composition on perceived parental support, $F(2, 1903) = 8.88, p < .000, \eta^2 = .01$, representing a small-sized effect (Cohen, 1988).

Post-hoc tests showed that there is a significant difference between perceived parental support in one-parent families ($M = 3.34, SD = 1.23$) and “traditional” two-parent families ($M = 3.64, SD = 1.15$) as well as between blended families ($M = 3.36, SD = 1.25$) and two-parent families. Students who live with both parents feel more supported than young people in blended families or one-parent families. Our hypothesis that adolescents from one-parent families (feel they) receive less parental support in everyday school life is confirmed.

7.3. Living in One-Parent Households Predicts a Lower Level of Some Career Competence Facets Among Adolescents

To test our third hypothesis, we performed a hierarchical multiple linear regression model for each of the twelve

career competence facets. As our focus in this study lies on family composition, we will only report in detail on the results of the following facets: occupational knowledge, exploration, and self-regulation.

Family composition significantly predicted the mean level of these three facets and remained significant in the second step with the addition of the predictor of teacher support. The remaining nine facets are not reported, regardless of the significance of the last step in the regression.

As Table 3 shows, the total R-square for three facets is statistically highly significant and of a similar size between .05 and .08, representing a similarly good model fit for these career competence facets.

Adolescents from one-parent families have significantly lower levels of competence in each presented facet compared to their classmates living with both parents (see Table 3). This effect is the same for three facets (all standardized $\beta: -.06$). Further, there are differences between two-parent families and blended families on the shown facets, but only occupational knowledge has a significant effect (standardized $\beta: -.05$).

In terms of exploration, it is clear that the location of the school has an effect (standardized $\beta: .06$). Adolescents in an underprivileged location explore more. The third hypothesis is confirmed with regard to the facets of occupational knowledge, exploration, and self-regulation.

Table 3. Hierarchical multiple regression predicting facets of career competence from demographic factors, school location, family composition, and teacher support.

Predictor	Facets of career competence					
	Occupational knowledge		Exploration		Self-regulation	
	ΔR^2	β	ΔR^2	β	ΔR^2	β
Model 1	.01***		.01***		.02***	
Gender (0)		.01		.05*		.12***
Language (0)		.10***		-.06*		-.11***
School location (0)		-.03		.08**		-.01
Model 2	.02**		.02**		.03**	
Gender (0)		.01		.05*		.12***
Language (0)		.10***		-.06*		-.11***
School location (0)		-.02		.08**		-.01
One-parent family (0)		-.07**		-.06**		-.07**
Blended family (0)		-.05*		.04		-.03
Model 3	.05***		.06***		.08***	
Gender (0)		.01		.05*		.12***
Language (0)		.11***		-.06*		-.10***
School location (0)		-.04		.06*		-.03
One-parent family (0)		-.06*		-.06*		-.06**
Blended family (0)		-.06*		.04		-.03
Teacher support		.17***		.20***		.23***
Total R^2	.05***		.06***		.08***	
n	1907		1907		1907	

Notes: Reference category is “two-parent family”; gender: 0 = male, 1 = female; * $p < .05$, ** $p < .01$, *** $p < .001$; school location: 0 = privileged, 1 = underprivileged.

7.4. Higher Perceived Teacher Support Predicts a Higher Level of Career Competence Among Adolescents

The perceived teacher support predicts the state of development in the shown facets of career development. The stronger the perceived teacher support, the higher the level of competence.

These significant effects lay between .17 (occupational knowledge) and .23 (self-regulation) and are thus twice or three times higher than the effect of living in a one-parent family or a two-parent family. Our hypothesis that higher perceived teacher support predicts a higher level of career competence is confirmed.

7.5. Limitations

One limitation of our studies lies in the cross-sectional analysis from which no conclusions can be drawn regarding causality or development processes. For example, we can only find a positive correlation between perceived support and higher scores in career choice competence, but no direction of effect. A longitudinal analysis might also focus on how children of one-parent families develop in relation to their peers. The group of blended families would have to be defined more precisely to identify possible risks in this area as well. Only small effects could be identified, which can be regarded as a first indication for potential needs. Furthermore, no interactions between the other predictors and family compositions were considered, but the shown findings suggest that interactions might exist.

8. Conclusion

Preceding research showed the positive effect of parental and teacher support on adolescents' career development (Mayhack & Kracke, 2010; Schindler, 2012). We were able to confirm this result with our data. As Dietrich et al. (2011) state, parental support in the form of conversations about what has been experienced in the context of career guidance is important—particularly when it comes to managing the transition from school to vocational or academic life. It was also found that adolescents from one-parent families rated parental support as lower than adolescents living with two parents. These results confirmed the assumption that one-parent families support their children's professional development less (Institut für Demoskopie Allensbach, 2014).

As mentioned above, the development of career competences is a complex process that recurs to different dimensions and phases (Driesel-Lange et al., 2020). The model is focused on both the school situation in Germany and the individual adolescent and describes that a variety of competences have to be acquired. These twelve competences are assigned to three dimensions, namely knowledge, motivation, and action. These are needed at different stages to deal with the transition after school. The model describes four phases

(tuning in, exploring, deciding, and attaining). The complexity of individual development is made clear by the fact that development cannot be thought of in a linear way (Ohlemann, 2021). This shows why it is so important to closely monitor how the acquisition of career competences develops and which factors could cause a lower acquisition of competences. It became apparent that adolescents from different family compositions only differed regarding their development in the following areas: occupational knowledge, exploration, and self-regulation. However, the results must be put into perspective with regard to the adolescents' level of career competence. It is important to mention that the adolescents did not differ concerning the other facets, like problem-solving, knowledge of prerequisites, or career confidence based on their family constellation. Here we also see that external factors do not fully explain how the acquisition of career competences proceeds. This is why it is so important to take a closer look at the individual, the different competences and external factors. Only then can further implications for the support of adolescents be made visible.

In the context of the state of research, exploration in particular stands out here. Kracke and Noack (2005) were able to show that adolescents develop positively in their exploration when both parents continuously encourage their children or provide their children with moderating support. The fact that children from one-parent families show a risk here can be used for further research. In this article, only one quantitative characteristic was collected. We know whether the adolescents in our sample grow up mainly with one or both parents. We know nothing about the quality of the relationship, the parenting style and expectations, or the educational level of the parents. We can only assume—and this is suggested by both Bartels and Stockhausen (2017) and the Institut für Demoskopie Allensbach (2014)—that the group of one-parent families is limited in terms of time and resources.

Nevertheless, based on these findings, further conclusions may be drawn. For one, adolescents from one-parent families face a specific need for support in the area of occupational knowledge, exploration, and self-regulation. At the same time, it can be seen as a relief that adolescents from one-parent families do not face a specific need for support on other facets of career competence, e.g., self-knowledge, career curiosity, or stress management. In order to target support, further studies would have to focus more closely on the parent-child relationship. This could then reveal very specific needs.

The shown effects of the one-parent family on the level of career competence are also relativized in comparison to the strong effects of teacher support. The positive effect of teacher support offers an opportunity to address or cushion the needs of this group through school-based career guidance. Therefore, it is important to raise teachers' awareness of their positive and significant influence.

We were able to confirm that adolescents from one-parent families are a risk group in career guidance that has received too little attention. In order to be able to classify these findings more broadly, however, a more thorough examination of this group is required. Until this takes place, we know that children in one-parent families need support early in their career development process. Further, schools as the key element of career guidance in Germany must be made aware of this risk in to provide appropriate support to these students. Among many things, this means a sufficient number of staff is needed for schools to provide the level and quality of support both policymakers and society expect from them. Furthermore, didactical consequences must be drawn to address special needs (e.g., peer learning, mentoring). This conclusion can contribute to more equal opportunities in the context of school-internal career guidance, ensured through the support of teachers.

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Conflict of Interests

The authors declare no conflict of interests.

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