

The medicalisation of learning difficulties through the prism of Bronfenbrenner's bioecological approach: the case of the remote and mountainous areas of Chania Prefecture

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Abstract

The purpose of this study is to look into the function of the medicalisation of learning difficulties and its impacts in the case of the remote and mountainous areas in Chania Prefecture, Crete, through the prism of Bronfenbrenner's bioecological approach. Educational documents, archives, newspapers, and laws are examined, and six semi-structured interviews are conducted and analysed. Thematic analysis resulted in two main themes: a. the differentiated environment in remote and mountainous areas and b. the medicalisation of learning difficulties, as an "inflation" phenomenon with a positive stigma. It also appears that the medicalisation of learning difficulties acts as a way of silencing environmental dimensions, and imposes an obstacle to detecting the deeper systemic, social, economic and political causes of these difficulties, especially in light of the consequences of the socioeconomic crisis in Greece

Keywords: medicalisation, learning difficulties, Bronfenbrenner's bioecological approach, socioeconomic crisis, positive stigma, remote and mountainous areas

Introduction

The predominance of the medicalisation¹ of learning difficulties², which unfolded during the 70s and the 80s, following the behavioural paradigm, is deeply rooted in education (Connor, 2013; Harwood & McMahon, 2014, Petrina, 2006). It resulted in the deprivation of learning contexts and the neglect of contextual dimensions, as well as of the interactions between them (Chagas, 2017; Connor, 2013; Harwood & McMahon, 2014; Katchergin, 2012, 2015). This deprivation of context, parallel to certain economic, social and educational policies (Connor, 2013) has led to a “pandemic” of diagnoses, with groups of pupils being characterised as “learning disabled” (Chagas, 2017; Katchergin, 2014, 2015).

The prevalence of medicalisation of learning difficulties and the increasing number of pupils being characterised as “learning disabled” has been objected to by research mainly coming from social sciences, which interpret learning difficulties, as a social construct. According to this view, learning and learning problems do not reside in the heads of pupils “as much as in the complex of social interactions performed in a place called school that is itself situated in a broader social, political, and cultural context” (Dudley-Marling, 2004, p. 483). This body of literature, in concordance with critical studies in education, suggests that educational policies produce school failure and create huge numbers of learning disabled

1 In this study, we use the term “medicalisation” to signify the process by which learning problems or difficulties are individualised and pathologised through a diagnosis, while the role of social context is minimised.

2 It is necessary to define the term “learning difficulties” as used here, given the many definitions in the field, e.g., learning disabilities as disorders, which are considered to be inherent. In our study, the term “learning difficulties” includes all problems or difficulties in learning that pupils face at school for whatever reason.

pupils. However, the focus on learning difficulties as a product of socioeconomic conditions has received rigorous criticism (Anastasiou & Kauffman, 2011, 2013).

The pandemic of diagnoses led educational policy to a shift towards an ecological model (Gutkin, 2012; Sheridan & Gutkin, & 2000), in order for the “environment” (Gutkin, 2012) to be taken into account in the identification of learning difficulties and other children’s school problems, as well as in the adoption of systemic interventions in family and schools. School Psychology moved towards a contextual approach of learning difficulties, based on Bronfenbrenner's ecological theory (1977, 1986), in support of focusing on the child’s environment, so that the child’s problems may be dealt with (Doll, Spies & Champion, 2012; for example)³. However, the transfigurations or changes towards an ecological model for dealing with learning difficulties, is twofold. One observes on one hand, the deep roots of the dominant ideology of the medicalisation of learning difficulties, that situates learning difficulties within the pupil, and on the other hand, in practice, the ecological model has focused less on remote systems (exosystem, macrosystem) as well as on the chronosystem (Bronfenbrenner, 1986).

This study discusses the medicalisation of learning difficulties in light of the Bronfenbrenner bioecological approach. It attempts to look into the function of the medicalisation of learning difficulties in the remote and mountainous areas of Chania Prefecture. Furthermore, it attempts to trace the impacts of the medicalisation of learning difficulties in these areas. The methodological focus on one prefecture is chosen for an in-depth examination of the function of the medicalisation and its impacts, especially in light of

3 A special volume 22 issue (1-2) of the *Journal of Educational and Psychological Consultation* (2012), is dedicated to Ecological Approaches to Mental Health and Educational Services for Children and Adolescents.

the socioeconomic crisis. A set of concepts, namely microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1977, 1986) from the revised ecological approach are being used in this study. These concepts turn out to provide a better understanding of the environmental dimensions that may contribute to pupils' low school performance in general, as well as in the mountainous and remote areas of Chania Prefecture too.

Bronfenbrenner's bioecological approach was selected because it focuses on the social dimension; it interprets the domains, and dynamically bridges them. Additionally, it helps analyse more subtle and embedded layers of the social, such as socioeconomic and educational policies. Especially in the areas of interest to this research, the bioecological approach sheds light on the impacts and dynamics of geomorphological, cultural and economic formations.

The theoretical frame

The medicalisation of learning difficulties

Medicalisation is a multidimensional process (see Petrina, 2006 for a historiographic synthesis) through which non-medical problems are defined and treated as medical problems (Conrad & Bergey, 2015). In the field of education, the pathologisation and individualisation of learning problems exempts the educational system from its responsibility in the spread of such problems (Chagas, 2017; Gomes & Simoni-Castro, 2017). The medicalisation of learning difficulties and the pathologisation of pupils' abilities inevitably leads to a devaluation of the geographical, cultural and social environment that has contributed to the initial emergence and further evolution of these difficulties. In particular, the roles of school,

family, and the interrelationship between the two, as well as with the wider community, have been underestimated when contemplating and discussing pupils' learning disorders.

The excessive number of pupils that have been labelled as learning disabled is an indication of such impacts (Katchergin, 2014; 2015). Specifically, Katchergin (2014) discusses this “inflation phenomenon” (p. 670) in Israel and attributes it to the medicalisation of all educational phenomena, analysing how learning difficulties are identified. The question about the existing number of disabled people posed by the same author (2015), reveals the ignorance about the notion of learning difficulties and the silencing of the historical, cultural and social contexts. Furthermore, the disproportionality of different socioeconomic or ethnic or racial groups in studies (Artiles, et al. 2002; Strand and Lindsay, 2009), appear to confirm that pupils coming from lower socioeconomic status and different language and culture environments present higher percentages of learning difficulties in the USA and Europe, thus revealing the ignorance of the frame for identifying learning difficulties.

Research in Educational Psychology has also provided enough evidence both for the ineffectiveness of the diagnostic procedure which comes as a result of the medical model's dominance regarding the identification of learning difficulties (Doll et al., 2012; Gutkin, 2012; Sheridan & Gutkin, 2000), as well as for the excessive number of referrals (Gutkin, 2012). Instead of the medical model, an ecological perspective is suggested, such as response to intervention (RtI) models. The theoretical background of different versions of Bronfenbrenner's model is often used (Tudge et al., 2009; Gutkin, 2012). RtI models are supposed to focus more on intervention to microsystems, such as school, rather than on the individual. RtI models are discussed in the relevant literature as to how and how much they are implemented (Fuchs & Fuchs, 2017). Although the inseparable role of context in the learning process is emphasised (Riddle, 2017; Rojas and Avitia 2017), the use of RtI as a solution to solve the issue of overrepresentation of pupils in Special Education is problematic

(Ferri, 2012). Furthermore, it is questionable how this model may be implemented in a “one-size fits-all fashion” rationale in different educational systems, and how its implementation is subject to the use of standardised tests to measure the discrepancy between intelligence and achievement (Stegemann, 2016); and, finally, “what is the responsibility of RTI to be responsive to difference” (Gerber, 2005, as cited in Ferri, 2012, p. 874).

The impacts of the medicalisation of learning difficulties also becomes evident with the poorer educational outcomes of those that have been diagnosed with learning difficulties (Shifrer, 2013), a remark suggesting that the label under discussion stigmatises pupils (Brantlinger, 2006), and this takes place through parents’ and teachers’ lower expectations (Gibbs et al., 2019; Gibbs & Elliott, 2015; Shifrer, 2013, 2016). However, the positive aspect of the diagnostic label is discussed in the literature too. The positive label of clever pupils, such as cases with dyslexia, may arise feelings of sympathy and understanding to the teachers, which may, in turn, augment pupils’ motivations. Snowling (2015) supports that this label is possible to be “the first step to intervention” (p. 20). Gibbs and Elliott (2020) criticise labels, and report a paradox: although more labels are possibly a tool for the exercising of a greater pressure regarding the provision of additional resources, dyslexia assessors keep levels of resource finite, as, should all struggling readers be provided with the help they required, the resources would have to adjust to such demand (p.492). Discussion on the SENCo-Forum indicates the importance of referrals for teachers. They receive indirect counselling through referrals, which provide advice on helping pupils (Senco Forum, 2005). This attitude on behalf of teachers’ hints that professionals are considered to know better what is wrong with the children. Furthermore, referrals protect teachers from the danger of being accused of negligence (Senco Forum, 2005). Katchergin (2012) also discusses the positive effect of labelling as a side effect of the medicalisation of learning difficulties. These

medicalised labels may enhance stigmatization because pupils are “perceived more and more as intelligent and as motivational” (p. 686).

The medicalisation of learning difficulties through the prism of the bioecological approach

Bronfenbrenner’s revised and extended ecological approach - known as bioecological approach (including Process-Person-Context-Time; PPCT model) (Bronfenbrenner & Morris, 2006) provides a useful theoretical frame for understanding the medicalisation of learning difficulties in multiple levels of influences, including those of microsystem, mesosystem, exosystem, macrosystem (Bronfenbrenner, 1977, 1979), and Time (Bronfenbrenner & Morris, 2006). From Bronfenbrenner’s perspective, human development does not unfold in the vacuum. According to this view, children’s learning difficulties can be adequately explained only when the environment’s complexity within these mutually interrelated systems (microsystem, mesosystem, exosystem, macrosystem) and Time, as the last addition on PPCT model, is taken into account.

The macrosystem is the most distant context; it comprises cultural values, any belief systems or ideology underlying the community (Bronfenbrenner, 1979). How the macrosystem views pupils with learning difficulties is critical in determining how teachers and their pupils function within the school, and also how families and their children function within their culture. If society holds a medicalised view, then the macrosystem will tend to support learning difficulties to be passed for a diagnosis. Thus, the way that the culture perceives learning difficulties is important for its effects on other systems.

Although, since the beginning of the 21st century, a shift towards an ecological paradigm encouraged school psychologists to focus more on interventions within systems, such as school and family, rather than just to diagnose the individuals (Gutkin, 2012; Gutkin

& Sheridan, 2000), this ecological perspective still crashes upon the “obedience” of the educational policy to the laws of the market economy (Fijalkow, 2011). Furthermore, the interpretation of a learning difficulty as only a “deficit” still lingers. Despite the fact that such a systemic approach appears to be optimistic, it is not known how and to what extent systemic interventions for learning difficulties are possible to be implemented in schools (Ferri, 2012; Fuchs & Fuchs, 2017).

Hence, learning difficulties, as a medicalised term penetrates teachers’ beliefs about the nature of learning. These beliefs are reflected both in teaching practices (microsystem of school) and in ways to deal with these difficulties (Connor, 2013). Taking into consideration the dominance of individualism and the medicalisation of learning difficulties along with the confusion that prevails with such a plethora of terms, definitions (Gibbs & Elliot, 2020), and different criteria of identification, low achievement is easy to be considered as inherent and low achievers to be referred for a diagnosis. In fact, when these difficulties accumulate throughout school years, all pupils underachieving may be referred for a diagnosis, a fact that may, in turn, lead to excessive number of diagnoses.

The number of referrals suggests that teachers cannot offer so much to these underachieving pupils (Harwood & McMahon, 2014). This role is to be undertaken by Public or Private Diagnostic Institutes (DIs) ⁴that lead to a diagnosis, and intervention. DIs

4 In Greece, Private or Public Diagnostic Institutes (DIs), which are under the supervision of the Ministry of Health, diagnose pupils’ learning difficulties. There are also Public Institutes for educational and consultative support (KESI) (Newspaper of Government of Hellenic Democracy, 2018), which belong to the Ministry of Education. Private Institutes exist too. KESI replaced the Centres of Diagnosis and Support of Children with Special Needs (KEDDY), (Newspaper of Government of Hellenic Democracy, 2008), but their diagnostic character remains until today. DIs and KESI give diagnosis documents for learning difficulties.

implement special education legislation which is determined by the general educational policy. Medicalised terms for learning difficulties, such as “diagnosis document” and, “diagnosing procedure” pervade most educational legislation for general and special education, both on an ideological level and on a level of implemented practices.

DIs are part of the exosystem; according to Bronfenbrenner (1977), exosystem is the system that indirectly influences the pupil, as a developing person has no active role and direct interactions with this system (Bronfenbrenner, 1977, 1993). However, it seems that the exosystem, in essence, interacts with the macrosystem (Rojas & Avitia, 2017), via the dominant view for learning difficulties. It also interacts with the mesosystem, which refers to interaction processes among the microsystems, where the impacts of the aforementioned systems overlap (Tudge et al., 2009). The discourse that possibly develops among teachers, pupils, and parents is inevitably medicalised too, as the use of medical speech in discussions about referrals, diagnoses, dialogues, perceptions, and understanding problems is dominant (Johnstone et al., 2018).

Time plays a crucial role in developing person's life (Tudge et al., 2009). To what extent in Time (micro-meso-macro) the kind of activities and interactions occur with consistency or inconsistency in the environment (home or school, etc.) is crucial for the “form, power, content, and direction of the proximal process” (Bronfenbrenner & Morris, 2006, p. 798). The micro-meso-macro-time affect individual characteristics, and the latter, in turn, are affected by processes and outcomes of human development over life (Bronfenbrenner & Morris, 2006). As far as activities are concerned, the pupil must be actively involved “on a fairly regular basis, over an extended period of time” (Bronfenbrenner & Morris, 2006, p. 798). Regarding the interaction, it must also occur on a fairly regular basis over extended periods of time.

Hence, the addition of Time proves to be of great importance in the realisation that personal characteristics get integrated into the microsystem, as characteristics of all those participating in children's development, such as parents, teachers, etc. (Bronfenbrenner & Morris, 2006). This understanding should always take into account the interrelation of the microsystem with all the above-mentioned systems.

When significant changes occur within the society, such as the socioeconomic crisis in Greece, this should be taken into account in (micro-meso-macro) Time, because they influence pupils' development, and particularly learning (Tudge et al., 2009). These changes interact with all other systems, run through them, influence existing beliefs and activities and may cause them alterations with time passing. It should be noticed that macrotime in the PPCT model coincides with chronosystem; a term that Bronfenbrenner had used earlier (Tudge et al., 2009). Thus, the addition of Time illustrates that it is impossible for periodical changes in microsystems not to be taken into consideration.

The medicalisation of learning difficulties seems to penetrate all systems. A medicalised culture for learning difficulties has been cultivated, and this culture via language and communication, is present within everyday practices, “operationalising” microsystems and becoming a part of proximal processes (Vélez-Agosto et al., 2017, p. 901). Consequently, it is essential to consider all the above in order to shed light on the complexity of learning difficulties.

Study Context and Research Questions

Since 2002, cases of overdiagnosing late high school pupils in several areas of Greece have been noted in the press (Tsarouhas, 2002). Using data from the National Statistical Service of Greece (2005-2006), Anastasiou and Polyhronopoulou (2009) showed that no over-identification of learning difficulties was found, but, on the contrary, an

underrepresentation came up. However, in this research, the percentages of Special Learning Difficulties, especially dyslexia in Secondary Education exploded with the proportion of students with dyslexia in Secondary Education to be almost six times greater than the corresponding ratio in Elementary Education. The researchers attribute the more significant number of diagnosed pupils in Secondary Education both to the Greek educational system's character, and identify and assess issues from DIs. It is also reported in another research (Bonti, et al., 2018) that the main referral reason for diagnosis adults seek is about academic issues, regarding different types of academic exams.

In 2018, a Greek newspaper (efsyn.gr) opened up the topic of diagnoses of both learning difficulties and ADHD. Psychiatrists, child psychiatrists and psychologists talked about “constructed percentages”(Vergou, 2018a, para. 3) that led to an industry of diagnoses, wondering “how from complete ignorance we reached excessive diagnoses” (Vergou, 2018a, para. 1). Almost a month later, the industry of diagnoses was confirmed by the former Greek Minister of Health: “the image shaped and the high percentage of children diagnosed with learning difficulties in Greece render clear that there is an epidemic tendency, not sufficiently justified based on data coming in from other EU countries” (Vergou, 2018b para, 5). A national plan was set to bring overdiagnosing to a half (Vergou, 2018c). Part of this plan constitutes the voting of the Act 4547/2018 (Newspaper of Government of Hellenic Democracy, 2018), which prioritises intervention.

Considering all the above studies, this study attempts to look into the function of the medicalisation of learning difficulties and its impacts, through the prism of the bioecological approach, in the remote and mountainous areas in Chania Prefecture, Crete.

The research questions that shape the content and structure of this study are:

1. How does the medicalisation of learning difficulties act in the remote and mountainous areas of Chania Prefecture?

2. What are the impacts of the medicalisation of learning difficulties in the remote and mountainous areas of Chania Prefecture?

Methods

The medicalisation of pupils' learning difficulties is discussed through the prism of the bioecological approach. To trace how the medicalisation of learning difficulties operates, and trace its impacts, the Prefecture of Chania, specifically its remote and mountainous areas, has been selected as a case study. Not only the access to data was easy, as two of three authors have worked there, but the authors were also aware of key figures for interviews and possessed deep comprehension of the cultural, geomorphological and socioeconomic frame. It is worth noting that one of the authors has vast experience in DIs and is familiar with diagnostic procedures, diagnoses, and the environment of the remote and mountainous areas. High schools⁵ attracted the focus of attention for the research because they appear to have the highest number of diagnoses prior to high school graduation which is compulsory.

The semi-structured interview was used as a research method. However, official educational documents, archives, educational laws, and articles from newspapers have also been used and analysed.

Data collection procedures

For the aims of the current study, permission to acquire data about pupils' diagnoses had to be granted by the Chania Secondary Education Office. The overall numbers of high schools diagnosis documents in Chania Prefecture were provided anonymously. Data were

5 In this study, we use the term "high schools" to signify Junior high schools (Greek Gymnasiums) meaning schools for pupils aged 12-15 years old.

also collected from archives about the number of teachers in high schools at Chania Prefecture. More specifically, the number of teaching hours per teacher per high school was requested and provided anonymously by the Chania Secondary Education Office. Furthermore, evidence of the educational level in Chania Prefecture was provided by the Hellenic Statistical Authority [ELSTAT], (2018), as well as the laws regarding the procedure learning difficulties are identified (Newspaper of Government of Hellenic Democracy, 2008, 2018). Additional evidence from national and local newspapers regarding the purpose of our study was sought. The newspapers reported the reaction of parents, teachers and pupils to missed class sessions (Sfakia Lyceum, 2019). ‘‘Paleochora’s High School under squatting due to lack of teachers’’ (see figure 1), to the process of employing non-permanent teachers and the consequences of these in pupils’ lives and schools function (Maridakis, 2019).

Figure 1

A mountainous high school is under squatting by pupils due to lack of teachers



On 22 October 2019, pupils from a mountainous high school squatted in their school due to lack of teachers. Photo from a local newspaper, <https://www.zarpanews.gr/chania-y-po-katalipsi-to-gymnasio-kaitolykeio-tis-palaiochoras-exaitias-tis-elleipsis-kathigiton/>

High schools, with pupils in the age range of 12 to 15, have been categorised as follows: a. high schools in mountainous areas, b. remote, not mountainous, but challenging to reach high schools, more than 70 km from the town centre, c. provincial high schools (those that are more than 25 km from the town centre) d. peripheral high schools (less than 25 km from the town centre and e. town centre high schools. For data to be efficiently interpreted, the number of diagnosis documents from all schools aforementioned in Chania Prefecture was requested and provided.

It should be clarified, that only the number of diagnosis documents was requested and provided by high schools in February of 2019 and not data on actual referrals, which are considerably more. There are no official records for referrals and reasons for being referred, but solely for diagnostic documents.

Interviewee selection

The selection for interviewees was based on purposeful sampling (Patton, 1990, 2002). The ultimate goal was to focus on cases, because of their importance, perhaps leading to better utilisation of research results.

After archive documents were gathered, interviews were conducted with six individuals holding key positions. The researchers considered that these individuals could give valuable and unique information, as they represent different microsystems (home, school), exosystems (DIs, Secondary Education), and interrelations between them (mesosystem), according to Bronfenbrenner's model (see table 1).

Table 1*Interviewees' profiles*

Interviewees	Profiles
1 st : Former high-ranking official at Chania Prefecture. Elected in the local authorities for many years	Vast experience and familiar with the difficulties of the remote and mountainous areas.
2 nd : Former General Director of the Secondary Education of Chania Prefecture	Vast experience and familiar with problems at schools.
3 rd : A teacher in a high school	Former principal at a mountainous high school (for a long time).
4 th : A principal of a Secondary Education school in a mountainous area	Familiar with the difficulties of a mountainous school during the socioeconomic crisis.
5 th : An experienced psychologist working at a Diagnostic Centre.	Vast experience with referred children and families' difficulties of the remote and mountainous areas.
6 th : Mother of two children diagnosed with learning difficulties.	Experience with DIs.

The six interviewees' professional profiles vary (Local Authority, Secondary Education Office, School and Home).

Data collection and analysis from a small sample of great diversity ensured high-quality information, as shared patterns emerged out of this heterogeneous sample, deriving their significance (Patton, 1990). Despite the limited sample, whose apparent heterogeneity comes from the key positions in different systems, the shared patterns in capturing the core

experiences (Isari & Pourkos, 2015; Patton, 1990) show how an “apparent weakness [turns] into a strength” (Patton, 1990, p. 172).

Because of a certain degree of vulnerability and multiplicity of layers of interpretation is connected to the issues that had to be discussed for the aims of the study, a qualitative survey method was opted for as opposed to a quantitative one. More specifically, the interview was seen as the most effective way to obtain such information.

The questions posed to the interviewees were built along three axes.

- a. The meaning of learning difficulties.
- b. Description of the entire procedure and actions in the case of a pupil exhibiting difficulties in learning in the remote and mountainous areas in Chania Prefecture.
- c. Description of the environment (school, home, community) of the remote and mountainous areas.

Data analysis

Six semi-structured interviews were conducted and analysed by “hand on analysis” of qualitative data (without the assistance of software). Thematic analysis was implemented using the processes and procedures outlined by Braun and Clarke (2006). Themes were driven from the research questions, and themes within data were identified in a theoretical way (top-down way). The semantic level was the level of the themes identified. The analysis of all data followed a five-phase guide.

1st phase: All the interviews, and the educational documents, such as the number of diagnosis documents from each high school, laws for learning difficulties identification, number of teaching hours per teacher per high school, evidence of the educational level in Chania Prefecture, and articles from newspapers were read and reread by the researchers, so that their familiarisation with data became feasible.

2nd phase: Data were organized in relation to the research questions. Each of the researchers -separately- coded each segment of the similar, interesting or relevant data to research questions. Researchers searched for initial codes. Upon completion, individual codes were compared and discussed. For example, an initial code was: “Schools are difficult to staff”. This code was extracted from the interviews and newspapers. Then, new codes were generated.

3rd phase: Codes were re-examined, and searched for common patterns; if the codes fitted together into a theme or if they were associated with two themes, we organised the codes into broader themes related to our research questions. For example, the above initial code was embedded under the theme “schools characteristics”.

4th phase: Modification and development of broader themes. Examined if data supported the themes, if there were other themes within the data, and if the final data supported the themes (table 2). After some changes, the thematic analysis resulted in two main themes.

The researchers interconnected and interweaved data from interviews, archives concerning the number of diagnoses, newspapers, educational laws, and documents, as a way to limit bias and achieve triangulation (Creswell, 2016). Data checking was implemented by the researchers as a strategy to validate the accuracy of qualitative data. Furthermore, the different scientific background of the researchers added value to data processing and interactive dialogue.

Table 2*Thematic analysis' results in the fourth stage*

Theme: <i>The environment of the school</i>	Theme: <i>The profile of families</i>	Theme: <i>Excessive referrals</i>	Theme: <i>The positive stigmatisation of the diagnoses</i>	Theme: <i>The incomplete intervention</i>
Subtheme: <u>The school structure and function</u>	Subtheme: <u>The pupils</u>	-Massive phenomenon	<i>diagnoses</i>	-no contact with school
-More demanding schools	-learning gaps from primary school	-Too many diagnoses	-relieves/ discriminates	- discussions by phone
-difficult to staff	-contribute to their families' income	Subtheme: <u>Who refers?</u>	-facilitates/ help pupils for exams	-giving information to the teachers about the diagnosis
-teaching hours loss	-do not like school	-parents themselves	-attracts teachers' attention	-referral to another diagnostic centre
-different types of primary schools	-are not supported (academically)	-teachers initiative	-eliminates accusations against children's difficulties	
-functional problems	-lack of opportunities	-parents try to convince teachers	-help teachers understand the nature of difficulties	
Subtheme: <u>The teachers</u>	-with some problems	-teachers try to convince parents	- faces the	
-ill-equipped/ inexperienced	Subtheme: <u>the parents</u>	-professionals		
-hard to be retained	-low educated	-entities (parents/teachers) try to convince children		
-refusal to come				
-low salary				
-problems of				

finding a place to live	-illiterate		stereotypical perceptions	
-exaggerated mobility	-additional activities		about low intelligence	
	-land / farming jobs			
	-believe that their children are not clever			
	-need to understand what's going on with their child			

The five themes and subthemes are presented as extracted from the thematic analysis, before the final stage. The third, fourth and fifth themes merged into one and the first and second themes merged into another.

Results

The medicalization of learning difficulties, as an “inflation” phenomenon with a positive stigma

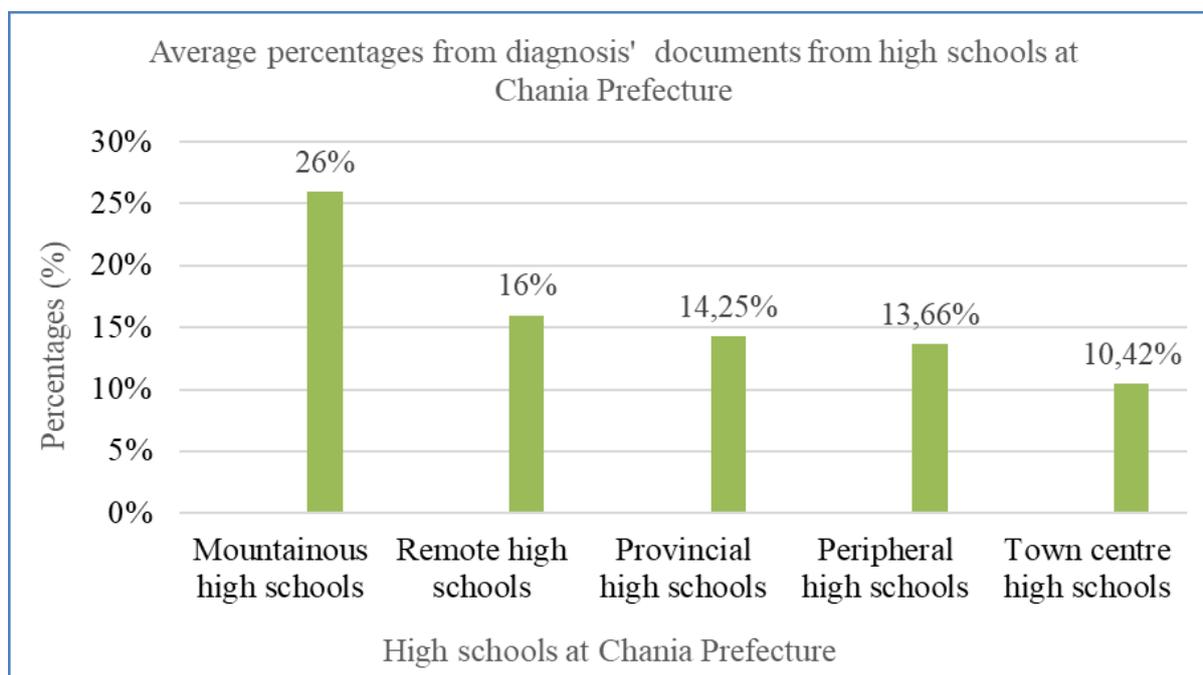
Excessive diagnoses

Analysis from educational archives, including the number of diagnosis documents per high school, showed that the percentages of pupils possessing diagnosis documents (see figure 2) in mountainous schools range from 25% to 27%. In contrast, the corresponding figure for remote high schools ranges from 15% to 17%. The percentages of pupils

possessing diagnosis documents from peripheral high schools present significant fluctuation (7% - 22%) and are possibly due to specific social-cultural characteristics of these areas. The highest percentages occur in peripheral high schools (16% and 22%), where pupils often come from mountainous villages, travelling to attend school, while the lowest percentages (7%-11%) come from tourist areas with a higher economic level where pupils live close to or in the area where the school is. The percentage of the diagnosis documents from town schools ranges from 7% to 15%. The highest percentage (11% - 15%) comes from areas where immigrant families and low educated parents live. A low percentage (7% - 9%) is observed in areas where families with a high socioeconomic status are reside.

Figure 2

Average percentages from diagnosis documents per mountainous, remote, provincial, peripheral and town centre high schools



The ever-growing phenomenon of pupils' referral for a diagnosis has been escalating since the late 2000s in Greece. The same is valid in the case of the remote and mountainous schools in Chania Prefecture.

“The referral procedure of pupils to the DIs has been an ever-growing phenomenon since 2008. Seven to eight years ago, parents themselves said that diagnostic assessment was needed” (teacher).

The referral process is not a simple procedure. First of all, the referral procedure entails parents’ full consent. In most cases, teachers have seized the initiative in the referral process.

“Teachers take the initiative for referral and diagnosis... teachers try to convince parents, and finally, parents are convinced by teachers” (former general director in Secondary Education, principal of a mountainous school, psychologist).

In the case of parents not giving their consent, teachers try to persuade them about the benefits of a referral. Usually, parents welcome the referral because they need to know about their children’s low performance.

“[Parents] need to know what is going on with their children and their learning difficulties at schools”.

Hence, any pupil with difficulties can be referred to the DIs.

“(we have referrals) from parents, schools, professionals, entities, teachers” (psychologist).

However, the referral parents’ full consent is not enough. It really requires that the child due to diagnosis collaborates to be assessed. In cases that pupils disagree parents try to convince them. The mother of a referred pupil says:

“I tried to convince my child saying that the lady at the Diagnostic Centre will help you...” (parent).

The desire for an oral examination that would lead to a more open exam process is so great that parents persist in obtaining a diagnostic document, even in the case where no significant problems are diagnosed. Parents often push teachers to give their children high grades or consent to a referral to a DI so that they can acquire the right to a much-desired oral examination. Thus, pupils may be assessed again and again until they receive the desired diagnosis.

“parents... if they are not satisfied with the diagnosis they get, may address other DIs for referral”
(psychologist, parent).

For teachers, diagnosis means, that pupils’ learning difficulties are not the result of inappropriate teaching methods or practices. By focusing on the individual, parents do not get accused by teachers, and teachers do not get accused by parents for the origins of pupils’ learning difficulties. This particular kind of collaboration is without any significant meaning since the purpose of the desired diagnosis has been achieved.

The primary attention to referral, assessment, and diagnosis signifies a problem and attracts the focus of attention onto the child as if he/she has an inherent problem. Pupils with low achievement are considered as children with special educational needs and are referred to DIs. The consent for a pupil’s referral from school, family, and DIs is implied by the medical model’s dominance in education and is still ongoing.

A product of cooperation towards the acquisition of a diagnosis, which may be justified depending on the kind of intervention needed, so that the pupil’s difficulties may be dealt with. Professionals may plan out individual interventions, but, in all cases, the collaboration between parents and teachers is necessary for the implementation of any intervention.

At this point, a paradox may be observed. Intervention does not take place after the diagnosis document.

“After receiving the diagnosis we had no contact with the school in the case of learning difficulties” (psychologist).

Interventions of a systemic type could occur as an outcome of the cooperation between DIs and schools for the enhancement of pupils’ learning.

When teachers ask to collaborate with DIs, collaboration is provided on an information exchange level, and some guidelines are given to teachers by the professionals by phone.

“The collaboration is summed up as information exchange about pupils’ diagnosis”
(psychologist).

Only in the case that a behavioural problem has already emerged, such as externalising problems, is this collaboration limited to the provision of information to teachers at school.

“Only if the school invites us for a lecture in the remote and mountainous areas, we respond...”

(psychologist).

The positive stigma

The analysis of interviews revealed the reasons why the acquisition of a diagnosis is so much valued. Teachers’ decisions for referring pupils to DIs for a diagnosis primarily signify their difficulty in dealing with pupils with some learning or behavioural difficulties. Through diagnosis assessment, teachers often seek more support to deal better with pupils that pose some difficulty to them.

“A professional will understand everything teachers cannot understand ... and provide them (the teachers) with more support to understand the nature of difficulties” (mountainous school principal).

Providing a specific diagnosis to pupils, means they become entitled to an oral assessment in school exams.

“Children are facilitated via diagnosis” (former general director of Secondary Education, psychologist, parent)

The decision for a referral may be a mutually crafted plan between teachers and parents, as the diagnosis helps pupils at exams and helps both teachers and parents indirectly.

Occasionally, parents themselves seek a referral for their children to be examined orally within school during the academic year, and in university entry exams. In qualitative terms, the oral examination is a more open process, which may result in better marks.

Additionally, a specific diagnosis alleviates parents, and also attracts teachers’ attention.

“[diagnosis]... relieves parents in case of dyslexia because they do not blame themselves ... (they) do not push or blame their children for that” (former general director in Secondary Education, psychologist)

“[Children] have been helped because they get more of the teachers' attention, and teachers exhibit more understanding of pupils' difficulties” (mountainous school principal, psychologist)

The differentiated environment

Of school structure and function

Taking into account the varying structure and function in the remote and mountainous areas of Chania Prefecture, teaching hours per week in each school were examined, via educational archives, as the actual time that teachers spend in the remote and mountainous high schools in the areas of interest, does not necessarily respond to their formal obligations.

The majority of high school teachers with a high percentage of diagnosis documents teach less than 11 hours per week in the remote or mountainous schools (see table 3). The vast majority of teachers stay for just one or two days per week at school, while the rest of the days, they complete their schedule time obligations in other schools. The opposite becomes evident at the peripheral and central high schools, where most teachers remain in school five days a week.

Table 3

Teachers' presence (hours per week) at school, based on educational archives

High Schools	Less than 11 hours per week	12-15 hours per week	More than 16 hours per week
Mountainous schools	68%	11%	21%

Remote Schools	59%	17%	24%
Provincial Schools	33,33%	13,10%	53,57%
Peripheral Schools	23%	19,40%	57,60%
Town centre schools	21,80%	16,60%	61,60%

Based on educational archives, we calculated teaching hours per teacher in each school of mountainous, remote, provincial, peripheral and town centre high schools.

Hence, a considerable number of classes are missed in these areas, and schools remain without an adequate number of teachers. In these schools, the vast majority of teachers are not employed from the beginning of the academic year, resulting in missing class days and hours. Parents' reactions to lack of teachers attracted the attention of mass media that reported that from the beginning of the school year, pupils missed class sessions and that the situation was grave, as pupils in these areas were seating for exams along with pupils nationwide, hence also lacking equal opportunities class (Sfakia Lyceum, 2019).

However, pupils revolted and opposed to this situation. It is typical for the school community to protest and manifest disagreement (Paleochora's High School, 2019).

School reality in remote and mountainous schools differs from that of urban schools. Because teachers spend limited time at each school, they tend to ignore the cultural background and pupils' biographies; thus, they tend to attribute learning difficulties to the pupils or the lack of sufficient cognitive stimuli from their environments.

“Teachers are ill-equipped and inexperienced” (former high-ranking official at Chania Prefecture, former general director in Secondary Education, teacher).

Although this disadvantage is of minor importance in various inner-city schools, where both teachers and pupils' socio-cultural base may often coincide, it becomes of significant importance in the case of remote and mountainous schools, especially with

regards to the identification of learning difficulties. Teachers often ignore cultural activities and often see learning problems as inherent. Since teachers are ill-equipped and experienced, they cannot get to know their pupils sufficiently or discover and address their needs effectively. This becomes evident in the tendency for high referrals to the DIs in areas where permanent teachers are normally allocated.

During the recent socioeconomic crisis in Greece, the situation described above has worsened, as many teachers do not accept the work placement. The teachers' rejections of the work placement in the remote and mountainous areas lead to significant school functioning changes and the quality of teaching.

“Teachers refuse to teach in the remote and mountainous schools of Chania Prefecture... they do not accept the placement... they do not come to teach” (former general director in Secondary Education)

Furthermore, it seems that the socioeconomic crisis intensified problems in these areas. Lower salaries, living and accommodation costs, coupled with the significant problem of finding a place to stay, all play a role in the insufficient addressing of schools' functional needs. The newspaper's report also included the views of permanent teachers. They supported that everything had changed in the last few years, with the rents going up, the low salaries, and the lack of available accommodation, all of which occur every year (Maridakis, 2019).

Additionally, the lack of permanent positions being offered to teachers since 2009, due to the crisis, the movement of a considerable number of permanent teachers back to where they come from, namely town or city centres to ensure better living conditions, have all shaped an urgent need for supply or contract-based employed teachers, to deal with the significant functional needs of schools in recent years.

The situation mentioned above creates further difficulties, as schools are confronted with pedagogical and functional problems. Educational programmes also fail to be realised,

as they remain only on paper, and Teaching Staff Associations, responsible for collective decision-making, function partially and inconsistently in these areas.

“Schools are confronted with pedagogical problems, such as the reduced participation of teachers in school and pupils’ lives, in teachers’ meeting at school, in decision making, in programmes’ implementation, such as ERASMUS programmes” (mountainous school principal)...

Of pupil’s and parents’ profiles

Adults residence in these areas (such as pupils’ parents) who have not completed high school education varies from 31.57% to 36.96% (ELSTAT, 2018) (table 4). It is a percentage higher than that occurring in towns and cities, which implies the persistent differentiation of the remote and mountainous areas concerning the adults’ educational level in these areas.

Table 4

Adults’ educational level, according to the population census of 2011 (ELSTAT, 2018)

Municipalities in Chania Prefecture	Graduates from elementary school (%)
Municipality of Sfakia	36.96
Municipality of Kissamos	35.65
Municipality of Platanias	32.73
The Municipality of Kandalos & Selino	31.58
Municipality of Apokoronas	29.10
Municipality of Chania	20.13

Adults' percentage was estimated based on the number of the adults who have graduated from elementary school, but not from high school, and on the total population per municipality in Chania Prefecture.

However, the perceived differentiation is also related to elementary schools from which the pupils in the remote and mountainous areas come and enter Secondary Education. Many elementary schools do not have proper separate school years, and pupils of various ages are often placed together in the same classroom. These pupils later going to high schools may have completely lacked learning support, leading to poor performance.

“Huge learning gaps occur amongst pupils who come from small multi-grade elementary schools, and they have difficulties in literacy skills” (teacher).

Hence, enough pupils from small rural elementary schools enter high school with a demanding curriculum, more rigorous formal examinations, and grading. Furthermore, there is a considerable gap between the curriculum’s demanding level and the poor academic support parents are in a position to offer. Some pupils who require homework support do not often get it because parents cannot support their children in studying.

“Children [who are referred from the remote areas] come from families who do not have compulsory education ... in some cases, parents do not have reading skills...Parents who have compulsory education cannot support their children in studying” (teacher, psychologist).

People’s life in these areas is also different. In quite a few cases, children follow their parents in their occupations. The time required for studying at home during high school years is not enough and maybe this is not a priority to pupils anyway.

“[Referred] children should carry on their parents’ professions” (psychologist).

Discussion

The medicalisation of learning difficulties silences the way schools function in these areas.

The problem of recruiting schools with permanent staff is a persistent issue in the remote and mountainous areas of Chania Prefecture. The situation has worsened due to the socioeconomic crisis in recent years. The latter has affected the resources allocated to education and teachers' salaries (Sfakia Lyceum, 2019). Moreover, it has made contract-based teachers a prevailing trend, in state schools in the last eleven years, because they are cheaper for the state. However, the crisis has also forced substitute teachers not to accept temporary employment for a few months of the academic year. They cannot afford their monthly expenses based on their salary, not to mention the significant problem of finding a place to stay in these areas (Maridakis, 2019). Hence, the quality of teaching and activities in schools comes under question.

The medicalisation of learning difficulties changes the teachers' role (Connor, 2013; Katchergin, 2015). Given the teachers' working conditions in these areas, where most teachers operate as facilitators, it seems that teachers today have abolished their pedagogic role (Harwood & McMahon, 2014) and ask for indirectly received counselling from experts (Senco Forum, 2005). Teachers expect pupils to learn on their own, and all pupils are expected to function and learn the same thing, at the same pace, with the same learning style, with a rigid, academically-oriented curriculum, and are evaluated in the same way, on an occasional and disrupted daily basis. The above description reflects changes in the roles of teachers. The risk of having teachers as plain operators of the syllabus, without stimulating students' active engagement, especially when they move to other schools throughout the day, becomes evident.

The medicalisation of learning difficulties silences the significance of cultural and educational background of the families. Pupils from the remote and mountainous areas, compared to urban areas, overall perform much lower in school (Mylonas, 1998). The environment of the pupils' family, educational and cultural background in these areas becomes of great significance, too, as it affects school performance (Fijalkow, 1999; Mylonas, 1998). Pupils' parents cannot supervise children with their homework efficiently, resulting in lower performance of their children at school and later learning gaps. These children are referred for a diagnosis to be able to keep up with school requirements. Given that the curriculum and examinations are demanding in Secondary Education, the number of pupils with learning difficulties is increased (Anastasiou & Polyhronopoulou, 2009). Considering all the above and parallel to the Greek entirely subject-centred curriculum with the fragmentation of time in 45-minute lessons may lead to increased pupils' academic difficulties in Time. Thus, a way out from the high curriculum demands is sought, through a more flexible, and not exam-oriented curriculum, in concordance with pupils' needs.

However, it is worth noting that underestimating children's participation and involvement in parents' work (farming, small businesses, etc.), reflects different culture and values that school possibly does not appreciate. School today does not value this sort of skills but solely academic achievement. The Greek school oriented towards the individual, creates failure since it classifies and evaluates pupils considering the learning rate (low or fast), and not learning itself (Dudley-Marling, 2004; Mc Dermott et al., 2006). Thus, the school has brought us to the learning and achievement equation and the degradation of the school's role in children's lives. It positions children out of the classroom, isolated from the formal learning process (Dafermos et al., 2017).

The medicalisation of learning difficulties leads to excessive numbers of learning difficulties diagnoses. The dominant model for learning difficulties is the medicalisation model that has

led to a multiplication of diagnoses (Katchergin, 2014, 2015). This increase is in tune with legislation changes (Newspaper of Government of Hellenic Democracy, 2008), where DIs have been set within a totally medicalised approach for learning difficulties. Ten years later, former Health minister's statement on overdiagnosing about Greece in general (Vergou, 2018a, Vergou, 2018b), also reaches the areas under discussion in this article. It could be argued that any pupil that does not meet grade-level standards or presents unusual behaviour is pathologised because he/she falls far from the norm (Brantlinger, 2006) and is referred to DIs for a diagnosis. The whole process focuses on the pupils as individuals and sees the impacts of environmental conditions varying from the norm as learning difficulties. The pupils from the remote and mountainous high schools are overrepresented in referrals and diagnosis documents.

The medicalisation of learning difficulties compensates all parts involved (parents, pupils and teachers) with positive labels. Although a diagnosis does not offer any special educational support, a diagnosis as a compensatory tool has a positive stigma (Katchergin, 2012), since nobody is causally blamed for generating pupils' learning difficulties. A diagnosis of learning difficulties relieves and exempts both parents and teachers from the causes of learning difficulties. Thus, diagnosing may be implemented as a method of removing barriers to school performance; it may also contribute to the balance between and within the systems and the reflection on ways to overcome pupils' difficulties (Gibbs & Elliott, 2020).

Parents and pupils agree that a diagnosis helps pupils through a label subsuming them to a specific category (Snowling, 2015). The consent to positive labelling implies that the different way of assessing academic achievement, such as oral examination, is vital for pupils' progress. These views spring out from the medicalised use of the term "learning difficulties", which also influence teachers' beliefs on the nature and role of learning and the

attribution of low achieving (Connor, 2013). However, the consent also indicates parents' and teachers' interest in the pupils' academic progress and the importance of school in these areas ("only one teacher is at the Lyceum", 2019).

The impacts of the medicalisation of learning difficulties on DIs. Our research results regarding the incomplete intervention come in contradiction with the recent change in the KESI orientation towards an ecological perspective in the handling of learning difficulties. However, this orientation change directly affects only one Institute under the supervision of the Ministry of Education, not all DIs. Although, according to the Act 4547/2018, KESI has changed its orientation mostly towards consultation rather than referral and diagnosis, it is not known if and how it is implemented, particularly with regards to pupils from the remote and mountainous areas. Till now, the solution of referring pupils to DIs has dominated as a typical attitude.

Considering all the above, fragmented solutions do not suffice to solve problems. Changes in legislation towards an ecological perspective will, on one hand, be fruitful with some difficulty because they are fragmentary and on the other, because the culture of diagnosis is dominant for teachers, parents, professionals.

The medicalisation of learning difficulties through the prism of the bioecological approach

The macrosystem does not appear to be such a distant and distinct system (Vélez-Agosto et al., 2017). The medicalisation culture has pervaded all systems (Harwood & McMahon, 2014, p. 925). Economic policies (exosystem) affect the way schools function (microsystem of school) at the remote and mountainous areas, with permanent teachers not being able to be present on a daily basis, over an extended period of time, in pupils lives (mesotime). This situation has worsened due to the socioeconomic crisis ten years later (chronosystem) and has degraded teachers' pedagogical role (Harwood & McMahon, 2014).

Given the demanding curriculum and examinations in Secondary Education along with insufficient parental supervision in the remote and mountainous areas, pupils with low performance are considered as pupils with learning difficulties. The educational policy for all pupils who “cannot be taught” supports the identification of pupils’ difficulties through the diagnosis process, performed by the DIs (exosystem). DIs complete the diagnosis process by naming a disorder (labelling), hence a problem that resides within the pupil (Person) and should be coped with (Dudley-Marling, 2004, p. 482). However, the label compensates all parts involved, parents, pupils and teachers (mesosystem) with positive labels. The benefits of the diagnosis are so many that the number of referred pupils to DIs increases.

This positive stigma destigmatises all the above systems for the pupils’ benefit. Although it is supposed to lead pupils to academic success, this cannot be fully achieved. It is a beautiful but empty gift. Thus, the positive label imposes an obstacle to detecting the deeper systemic, social, economic and political causes of these difficulties. However, this destigmatisation also suggests that knowledge is based on a reciprocal relationship between teachers and pupils, with consistency in Time. But this is not the case. This situation raises questions as to what extent the inconsistency in Time affects person characteristics, which affects the direction and the power of proximal processes (Bronfenbrenner & Morris, 2006).

The medicalisation of learning difficulties, as a process, starting from the macrosystem, lies within everyday practices, penetrates the exosystem, the mesosystem, the school microsystem, and becomes a part of proximal processes (Vélez-Agosto et al., 2017), forming the core of the medicalisation of learning difficulties.

Therefore, the medicalisation can be considered as a process and at the same time as a product of this process which has pervaded society and penetrates all systems (Harwood & McMahon, 2014).

Conclusion

The medicalisation of learning difficulties is invisible. Like a veil, which provides the ability for all systems to penetrate through it. It defines peoples' practices, changes the educators' roles and puts communication and collaborations on a different plane. It leads to excessive number of referrals, which are compensated by the positive stigmatisation. The medicalisation of learning difficulties leads in a medicalised rich culture (Harwood & Mahon, 2014), reducing our understanding of the difficulties pupils face, rendering those difficulties into symptoms (Connor, 2013), especially after the socioeconomic crisis.

Parallel to the dominant culture of individualism of the educational system, this medicalisation culture is proven powerful (Vélez-Agosto et al., 2017). It is based on a robust medicalised knowledge base (Connor, 2013). Thus, medicalised culture is embedded in all of the systems, from which the individual cannot stand distinct. Insight is essential for understanding the environment from which high schools pupils are referred to DIs and the whole socioeconomic and cultural frames within which pupils live and develop. Furthermore, it is also vital for social and educational policy; fragmentary changes, without considering the dominant medicalised culture, may not prove effective.

The Greek educational system, through a narrow curriculum, has failed to meet pupils' needs and bring envisaged educational outcomes. Thus, it has to be reviewed in all domains and levels. "Direction" remains the most important issue. The transformation of the invisible into visible and a reconsideration of our practices is essential. This can be achieved by promoting dialogue on the issue.

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