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Research Article

Adaptive Behavior and Quality of Life of adults with intellectual disabilities: Psychomotor Therapy as support

Abstract

Background: The increased scientific recognition of Quality of Life (QOL) and adaptive behavior constructs implies changes in practice aligned with the supports person-centred provision. The alignment between these constructs is been recently proven at theoretical level but it still lacks of practical evidences-based.

Purpose: This article' goal is to analyses the practical relations among measures of all constructs, through the examination how psychomotor therapy, as one of the supports provided, to adults with Intellectual Disability (ID), can contribute for a better adaptive behavior performance and for a life with more quality. The three Portuguese versions of Adaptive Behavior, Supports Intensity and Personal Outcomes Scales were applied to 11 adults with IDD, between 24 and 45 years (32.64±6.92), five females and six males, institutionalized. All participants were assessed in three different moments: before and after intervention, and one month later for the retention assessment. Baseline results allowed the planning and implementation of a 6-month psychomotor program, with weekly sessions of 50 minutes.

Results: Results showed better adaptive level and positive personal outcomes, as well a reduction of supports needs. Psychomotor therapy may have positive effects on independent functioning level of adults with IDD. Further, results pointed out a positive and moderate correlation between QOL and adaptive behavior but negative and moderate with supports needs.

Abbreviations

ID: Intellectual Disability; QoL: Quality of Life

Introduction

The functional and multidimensional approaches to human functioning [1,2] of people with intellectual disabilities (ID) have required a repositioning against the provision of support [3] basing the implementation of person–centered programs and its effectiveness monitoring [4]. Adaptive behavior reflects an individual competences needed in daily life activities, which allow to meet the demands of everyday life [5–8]. Its measurement is focused on the quality of the relation between the person and his/her environment [9] and allow to identify the persons' adaptive profile (strengths and weaknesses), help in supports' eligibility, for a real alignment between personal characteristics and best practices [1], aiming to positively impact personal outcomes [10], and allowing to assess interventions effectiveness [1]. Persons with ID tend to show lower adaptive levels that their typical peers [11]: in independent tasks (e.g.: mobility, hygiene, food, health and safety, clothing, among others), academic (e.g.: numbers/time, reading/writing), economic, vocational and domestic activities. Responsibility, self–direction and social/language skills are also affected [8]. Cognitive limitations will restraint learning processes, needing more time for the task [11] and showing a lower motor accuracy [12]. Several variables influence adaptive pattern development [8,13,14].

The exclusively identification of intellectual and adaptive profile are not enough for a real comprehension of individual functioning [3] that is influenced by the complexity and number of contexts and daily life activities [15]. Supports needs assessment should also be considered [16]. Adaptive behavior and supports are different but related constructs [16,17] with strong (most scores above .71) but negative correlations [18–20]. Higher correlation scores were found between supports *daily life activities* and adaptive *independent functioning* (.84) and *domestic activity* (.85). Lower scores were found in *vocational and*

employment activities. Persons with higher adaptive behavior skills, tend to present less supports needs, although other impacting variables that might influence support needs [21].

The personal outcomes of persons with ID and the satisfaction with their own life's is changing institutions. The multidimensional construct of QoL, with objective and subjective indicators, involves three factors and eight domains: *Independence* with *personal development* and *self-determination* domains, *Social Participation* constituted by *interpersonal* relations, *social inclusion*, and *rights* domains, and (emotional, physical and material) *Well-Being* [22].

Moderate correlation between adaptive and QOL domains were found, with lower scores in adaptive' *self-direction* and *responsibility* domains, although significant and positive [17,20]. Adaptive behavior is the strongest predictor for a life with quality [23]. The analysis between supports needs and QOL domains' correlations showed stronger scores between *domestic* and *community* activities, and weak scores with *well-being* eventually explained by the mismatch between supports needs and supports received [4,20]. The *personal development* domain showed the strongest correlations with adaptive behavior and supports needs [20,22]. Generally speaking, adults with IDD tend to feel satisfied with their lives and with (occupational) activities performed, which are not mirrored in caregiver's opinion, to whom lacks the payment of a salary [24]. Formal caregivers tend for more positive answers and parents for worse score in physical *well-being d*omain. Compared to typical peers, adults with IDD, with intermittent and limited supports needs, reports a lower QOL index except in *physical* and *emotional well-being* domains [20].

Psychomotor Therapy (PMT) is one of the supports provided to institutionalized persons with ID, which, within a holistic view of the person based on movement and psychomotor competences proficiency, aims to improve independent functioning and personal outcomes for a life with more quality [25]. Psychomotor therapists are being challenged to change their interventions for person-centered plans and the alignment between adaptive behavior supports and personal outcomes seems necessary. Although some researches analyzing the contribution of PMT at adaptive behavior level [26,27] and quality of life [28] there are no study, as far as we are concerned, that examines the relation between all three constructs. Further, it is required the measurement of PMT' effectiveness [25].

This article aims to analyze the effects of a PMT program, as a support, on adaptive behavior and personal outcomes, trying to answer the following questions: does PMT, as one of the supports provided to institutionalized adults with ID, can contribute to adaptive promotion? The increase of adaptive behavior scores will be related to an increase in personal outcomes and a decrease in supports needs? How these three constructs are related to each other?

Material and Methods

Sample

Sample was composed by 11 participants, between 24 and

45 years (32.64±6.92), 5 females and 6 males with previous clinical diagnosis of ID. All were institutionalized. Participants were selected based in ID diagnosis, and with ability to understand and answer EPR. After, baseline assessment, participants were divided in two groups according to their adaptive profile: group A was composed by 5 participants, 2 males and 3 females, with ages ranging from 27 to 34 years (30.80±2.86) with less adaptive competences; and group B by 6 participants, 4 males and 2 females between 24 and 45 years (34.17±9.11), and with a more functional profile. Both intervention groups benefited from psychomotor intervention in context of gym, having maintained, all the supports that were in their individual plan. All participants are attending the institution for the last 3 years, at least, and most live at home with parents. The two practitioners that answered the EPR' report of others, were both psychomotor therapist, and knew the persons with ID at least for 2 years.

Instruments

The Portuguese version of Adaptive Behavior Scale (P-ABS) assess the person' adaptive behavior skills, allowing to establish the adaptive behavior profile [6]. P-ABS is a multidimensional scale, organized in two different parts. The first involves 10 domains: independent functioning, physical development, economic activity, language development, numbers and time, domestic activity, prevocational activity, self-direction, responsability and socialization [6]. Items are classified or dichotomically (yes/no corresponding to 1 or 0 points) or according to the highest level of adaptive performance. Part II assess behavior problems and items are classified according to its frequency (never=0 pts; occasionally=1pt; frequently=2pts) organized in 10 domains: social behavior, conformity, trustworthiness, stereotyped and hyperactive behavior, sexual behavior, self-abusive behavior, social engagement and disturbing interpersonal behavior [6]. Psychometric properties analysis pointed out the good qualities mainly of part I, allowing the discrimination between persons with and whithout ID [6].

The *Portuguese version of Supports Intensity Scale* aims to establish the support needs profile of people with ID, older than 16 years, based on the supports type, frequency and daily time [29]. The P-SIS consists of three sections [15, 29]: a) Section A consisting of 6 subscales: home living activities(8 items); community living activities (8 items); lifelong learning activities (9 items); employment activites (8 items); health and safety activities (8 items); social activities (8 items); 2) Section A = Protection and Advocacy Scale (8 items) that do not contribute for final score; and 3) Section of Exceptional Medical (15 items) and Behavioral (3 items) support needs [29,30]. Rating of the first two sections' items is based on a 4-point scale ranging from 0 (no need of supports) to 4 (great need of supports), and the last one items rating varies between 0 (no need of support and 2 (high need of support) [15,29]. Psychometric properties analysis pointed out the Portuguese version as a reliable and valid instrument for assessing support needs [29].

The *Portuguese version of Personal Outcomes Scale* (EPR), the only nationally validated scale for assessing QoL of adults with

ID "mild and moderate" [30], is aligned with Schalock and Verdugo conceptual model described before. IT has two parts, each with 40 identical issues [32]: a self-report that should be answered by the person with ID, and the report-of-others that must be answered by a proxy who knows the evaluated person well [30]. All items are rated through a 3-ponte scale (e.g.: 1=never; 2=sometimes; 3=frequent). Psychometric properties of EPR confirmed the validity and reliability, as well the factorial structure of the model [32].

Procedures

All etichal requirements were fulfilled: contact with institutions for authorization and signature of written consent documents for all participants. All participants were evaluated in three different moments: before intervention for the baseline establishment (instruments were applied twice with a 2-3 weeks interval), after the program implementation and finally one month after the program has ended. All scales were applied as an interview to a proxy that knows well the participants and EPR' self-report case was answered by the participants with ID. Respondents were the same in each application moment. Each scale took about 45 minutes to be completely applied.

The treatment of statistical data was accomplished through software *Statistical Package of Social Sciences (SPSS)*, 23.

Psychomotor intervention program

The collection of information, from three scales as well the list of interests, preferences and life experiences desired of each participant, enabled he development of an 6 month-intervention program. The psychomotor model involved the selection of settings where participants usually attend and the social expectations, specific strategies, frequency and duration of sessions, kind of activities, among other. Standard sessions (50 minutes a week) encompassed the following moments: general activation (10 minutes) where were held joint mobility movements and activation of the musculoskeletal system, followed by an initial dialogue between therapist and clients; activities development (30 minutes) to stimulate adaptive, social and psychomotor skills; and finally, the relaxation moment (10 minutes).

In all sessions were used sequential routine strategies, simple verbal statement, positive reinforcement, demonstration and feedback, task decomposition, among others, always associated with a personal reflection about the experience. The main goal was the transfer to daily life activities and a replacement of (physical, verbal or gestural) support from the therapist for other more natural kind of supports or for an autonomous performance. Progress and difficulties were recorded after each session, and a daily review of the activities, procedures, and strategies was performed. Supports given were adapted to each participant (and not the diagnosis), considering the importance that each participant gave the various fields. The evaluation of individual progress, as well as the effectiveness of the strategies and the program was held at the end of the program, always associated with a qualitative assessment.

Results

The data collected in all three different moments is were analysed. Given the sample size (N<30) [31], non-parametric techniques were chosen: the Kruskall-Wallis test was used for comparing groups, and Wilcoxon test for comparison intra-group performance over time, seeking to ascertain the existence (or not) of significant differences (tables 1,2). Finally, it was further examined the correlation, through Pearson correlation coefficients, between adaptive results, need of support and quality of life (tables 3,4). All analysis implied the double version of EPR: self-report (SR) and report of others (RO).

Participants of Group 1 tend to present lower scores in *Independent functioning, Physical development, Language development*, and *Domestic activity* domains, that seem to better after the psychomotor intervention. This evolution in visible in both groups, when comparing over time, especially in the domains *Independent functioning, Physical development*, and *Self-direction*.

The results found in P-SIS are similar to P-ABS, with a tendency to reduce supports needs in all three categories (type, frequency and dialy time). The intra and between-group comparison for the assessment of personal outcomes shows little differences among the groups, except for the *rights* domain in the baseline assessment and the *self-determination* in the final and retention evaluation in self-report part, and the interpersonal relations in the initial moment and *physical*

Table 1: Kruskal-Wallis and Wilcoxon test scores for inter- and intra-group comparisons in the P-ABS domains.

P-ABS – domains	Group 1 vs Group 2 Kruskal-Wallis T			Group 1 P-ABS (Wilcoxon Test)		Group 2 P-ABS (Wilcoxon Test)	
	BEv	FEv	REv	BEv vs. FEv	FEv vs. REv	BEv vs. FEv	FEv vs. REv
Independent Functioning	.03	.07	.03	.01	.07	.05	.08
Physical Development	.05	.15	.57	.03	.16	.18	.10
Economic Activity	.18	.18	.18	.31	1	.32	.32
Language Development	.71	.71	.65	.01	.16	.04	.16
Numbers and Time	.20	.20	.13	1	.32	1	1
Domestic Activity	.90	.78	.78	.05	.16	.32	.32
Prevocational Activity	.07	.18	.09	1	.32	.32	1
Self-Direction	.02	.07	.07	.18	.32	1	1
Responsability	.30	.41	.41	.15	1	1	1
Socialization	.44	.69	.69	.31	1	.32	1
Social Behavior	.56	.36	.36	.10	1	.18	.32
Conformity	.36	.36	.36	.31	1	.32	.32
Trustworthiness	.36	1	.36	.31	1	.32	.32
Strereotyped/ Hyperactive Behavior	.09	.09	.09	1	1	1	1
Sexual Behavior	.36	.36	.36	1	1	1	1
Self-abusive Behavior	.36	.36	.36	1	1	1	1
Social Engagement	.27	.27	.27	1	1	1	1
Disturbing Interpessonal Behavior	.18	.36	.36	.18	1	.18	.32

p<.05; Note: BEv=baseline evaluation; FEv=final evaluation; Ver=retention evaluation;

Table 2: Kruskal-Wallis and Wilcoxon test values for inter- and intra-group comparison in P-SIS and EPR.

P-SIS	Group 1 vs Group 2 Kruskal-Wallis test			Group 1 SIS (Wilcoxon test)		Group 2 SIS (Wilcoxon test)	
	BEv	FEv	REv	BEv vs. FEv	FEv vs. REv	BEv vs. FEv	FEv vs. REv
Home Living Activities	.04	.58	.58	.01	.10	.03	.02
Community Living Activities	.01	.01	.01	.00	.07	.03	.11
Lifelong Learning Activities	.93	.27	.46	.01	.11	.03	.03
Employment Activities	.01	.01	.01	.01	1	.03	1
Health & Safety Activities	.01	.06	.06	.01	1	.03	1
Social Activities	.04	.02	.02	.01	1	.04	1
EPR (SR)							
Personal Development	.20	.18	.30	.01	.32	.03	.08
Self-Determination	.84	.04	.43	.01	1	.07	.18
Interpersonal Relations	.77	.76	.14	.06	.16	.20	1
Social Inclusion	.77	.19	.05	.01	.10	.04	.18
Rights	.03	.43	.57	.02	.32	.03	.32
Emotional Well-Being	1	1	1	1	1	1	1
Physical Well-Being	1	.61	.61	.05	1	.12	1
Material Well-Being	.27	.63	.35	.03	.32	.05	.32
QoL_SR	.41	.29	.23	.01	.10	.03	.10
EPR (RO)							
Personal Development	.77	.38	.22	.01	.32	.04	1
Self-Determination	.85	.46	.17	.01	.10	.04	1
Interpersonal Relations	.04	.10	.10	.04	.32	.32	1
Social Inclusion	.64	.34	.30	.01	.32	.07	1
Rights	.70	.38	.38	.08	.32	.08	1
Emotional Well-Being	.16	.27	.27	.01	1	.03	1
Physical Well-Being	.10	.01	.01	.08	1	.08	1
Material Well-Being	.49	.09	.11	.1	1	.1	.32
QoL_RO	.36	.08	.04	.00	.11	.03	.32

$p<.05$;

Table 3: Correlations between P-ABS domains with P-SIS and P-POS domains.

P-SIS	Portuguese version of Adaptive Behavior Scale									
	IF	PD	EA	LA	NT	DA	PPV	SD	R	S
Home Living Activities	-.50	-.43	-.68*	-.04	-.40	-.62**	-.52	-.57	-.59	.01
Community Living Activities	-.77**	-.62*	-.58	-.28	-.65*	-.12	-.65*	-.67*	-.27	.15
Lifelong Learning Activities	-.29	.19	-.54	-.14	-.15	-.43	-.36	-.25	-.43	-.33
Employment Activities	-.6*	-.37	-.37	-.09	-.47	-.19	-.68*	-.79**	-.59	.24
Health and Safety Activities	-.66*	-.44	-.42	.02	-.38	-.25	-.60	-.78**	-.63*	.21
Social Activities	-.38	-.22	-.06	.11	-.12	-.36	-.39	-.6	-.59	.33
Total	-.65*	-.35	-.57	-.11	-.45	-.40	-.66*	-.73*	-.62*	.08
Domains P-POS-SR										
Personal Development	.03	.08	.25	.30	.68*	.12	.73*	.49	.36	.03
Self-Determination	.02	.08	.00	.68*	.66*	.09	.60	.33	.07	.08
Interpersonal Relations	.05	.05	.4	.49	.52	.03	.55	.35	.11	.09
Social Inclusion	.22	.08	.09	.47	.69*	.38	.58	.17	.01	.26
Rights	.34	.32	.15	.53	.28	.08	.15	.20	.31	.23
Physical Well-Being	.51	.01	.09	.64*	.41	.12	.47	.43	.13	.07
Material Well-Being	.08	.22	.01	.12	.44	.74**	.20	.05	.32	.09
Index QoL_SR	.50	.04	.18	.77**	.66*	.22	.65*	.40	.22	.07
Domains P-POS-RO										
Personal Development	.41	.41	.04	.35	.41	.57	.21	.39	.38	.27
Self-Determination	.44	.39	.48	.05	.12	.56	.15	.09	.09	.18
Interpersonal Relations	.49	.06	.27	.31	.47	.15	.58	.53	.41	.18
Social Inclusion	.45	.25	.55	.41	.28	.51	.17	.01	.14	.41
Rights	.14	.15	.20	.16	.12	.20	.18	.10	.08	.17
Emotional Well-Being	.55	.55	.16	.32	.52	.15	.41	.41	.04	.14
Physical Well-Being	.10	.09	.04	.03	.22	.42	.08	.01	.17	.25
Material Well-Being	.09	.12	.17	.23	.48	.42	.52	.27	.26	.4
Index QoL_RO	.21	.37	.18	.19	.3	.52	.37	.13	.05	.09

Note. ** $p \leq .001$; * $p < .05$.

Table 4: Correlations between the domains of P-SIS and P-POS.

Domains P-POS-SR	Support Intensity Scale						
	HLA	CLA	LLA	EA	HSA	SA	Total
Personal Development	-.30	-.40	-.02	-.59	-.39	-.30	-.42
Self-Determination	-.03	-.12	.02	-.17	-.03	-.12	-.08
Interpersonal Relations	-.08	-.25	-.04	-.27	-.07	.13	-.13
Social InclusionS	.10	-.10	.29	-.22	-.00	-.12	-.00
Rights	.22	.36	.19	.35	.57	.33	.37
Physical Well-Being	.2	-.32	-.04	-.17	-.16	.12	-.02
Material Well-Being	.21	-.32	.31	-.08	-.08	.41	.11
Index QoL_SR	.17	-.4	.18	-.33	-.15	-.02	-.07
Domains P-POS-RO							
Personal Development	-.02	-.05	-.23	.07	.06	.23	-.07
Self-Determination	.24	.23	.19	-.17	.01	-.35	-.07
Interpersonal Relations	-.6	-.65*	-.40	-.81**	-.72*	-.59	-.79**
Social Inclusion	.24	.17	.16	-.22	-.11	-.21	-.10
Rights	-.17	-.29	-.56	-.13	-.32	.13	-.31
Emocional Well-Being	.29	.51	.04	.19	.35	.15	.15
Physical Well-Being	-.29	-.53	-.25	-.39	-.44	-.06	-.45
Material Well-Being	.13	-.21	.18	-.37	-.23	-.14	-.11
Index QoL_RO	**-.01**	-.14	-.17	-.41	-.30	-.26	-.37

Note. ** $p \leq .001$; * $p < .05$. Subtitle: HLA=home living activities; CLA=community living activites; LLA= lifelong learning activities; EA=employment activities; HSA=health and safety activites; SA=social activities

well-being in the final and retention evaluation in report–of–others perspective.

In general, the correlation coefficients between the adaptive domains and supports needs seem to be strong but negative (Table 3), as expected: persons with ID with higher adaptive behavior scores seems not to need intense support needs and vice-versa; correlation scores between adaptive behavior domains and EPR domains show some variations.

Analysis of the correlation coefficients between the P–SIS and P–POS domains' tend to present strong but but negative correlations between both parts of P–POS and P–SIS, indicating that participants with higher support needs seem to experience a lower quality of life.

Discussion of Results

This study aimed to analyze the contribution of psychomotor intervention, as one of the supports provided by institution, in adaptive behavior skills and personal outcomes of adults with ID institutionalized, in order to deepen, in practice, the theoretical evidence of these three constructs' correlation. Our results contribute to the literature and to psychomotor practice through an analysis which incorporates 3 measures, and the privileged the active participation of persons with ID.

Participants achieved higher scores at adaptive behavior domains such as: *independent functioning, physical development, self-direction, responsibility* and *socialization*. Participants since their entry in institution are offered the possibility to have psychomotor intervention as one of the supports which may have influenced some of the results, due to the systematic training and stimulation on this field (e.g.: tasks that should

be fulfilled within specific periods of time). This may explain better results in the *self-direction, responsibility* and *socialization* adaptive domains.

The psychomotor intervention program was focused on the stimulation of psychomotor factors (tonus, balance, lateralization, body notion, space and time, fine and gross motor skills) with a key role in carrying out activities of daily living [5,8,25]. Language development is one of the average domains with the majority of the participants to be verbal. *Economic activity, numbers and time, domestic and pre-vocational activities* are still the domains that systematically the literature reports difficulties of persons with ID [26,27].

The cognitive and executive limitations of persons with ID, as well the lack of opportunities in a real context, impacts daily activities such as the money recognition and use, spatial and temporal notion and basic mathematical operations, etc. [5,8,26,27]. The overprotection with the lack of dis-responsibility of this type of tasks, assumed by a proxy, the devaluation of persons with ID' capacities [5], the fact of psychomotor intervention did not focus on all these issues, the lower productivity indices [13,26] , are some of the barriers that person with ID still faces.

Although the trend for dis-adjustments by persons with ID [13], it should be noted that both groups presented almost optimal scores, in the three different moments, indicating an understanding of their consequences [5,26,27]. This behavioral regulation by persons with ID are in line with consistent and well explained application of institutional rules and guidelines. Although the inexistence of significant differences, it is to be highlighted the qualitative improvement of *disturbing interpersonal behavior* domain at the time of the final

evaluation. Group 2, with a more functional profile, presented better results in all adaptive domains - as expected, in all assessment moments and intra-groups comparison analysis presented significant differences between baseline and final assessment. This improvement focuses on the *independent functioning* and *language development* for both groups, and in *physical development* and *domestic activity* in the group 1 (with lower initial functional profile). Were also possible to observe some qualitative improvements in other domains.

The P-SIS results, in both groups, points out the greater support needs at *community living activities, lifelong learning activities* and *health and safety,* with no changes in final scores. Nevertheless, *social activities* is a strong domain, revealing lower support needs. The *employment activities,* of group 2, showed a lower supports needs, which seems to be in line with a more functional profile and with activities carried out in institution (e.g.: car wash or pet baths). This fact seems to be somehow keeping up with the adaptive assessment where the domains of *independent functioning, self-direction, responsibility* seem to stand out.

During the intervention, there was a tendency to reduce support needs, which may indicates the possible benefits of psychomotor intervention, through psychomotor factors promotion, corroborating the need for constant monitoring and review of individual supports plans [15]. The analysis of results of the three evaluation moments points out an evolution in adaptive behavior of all participants, as well shows the tendency to decrease supports. Throughout the intervention, the participants were empowered with strategies and functional learning for greater independence in certain daily tasks [25-27].

The QOL scores presented the same tendency that both constructs before: mean values increase slightly from initial to final evaluation, tending to remain after the program end. Significant differences, from the self-report perspective, are expressed in seven indices in group 2: *personal development, social inclusion, rights, material well-being* and the *global QOL index*; with group 1 presenting two more domains with significant differences: *self-determination,* and *physical well-being.*

Personal development indicators are related with daily adaptive competences which was promoted along the program, through functional and meaningful for problem-solving. There were differences in daily performance in both EPR parts, because caregivers and participants disagreed about the ability (e.g.: preparing meals and taking mediation by themselves) to perform such tasks. Were found slight improvements in self-report about *self-determination* domain, possibly explained by the opportunity to make practical decisions during the intervention. However, in caregiver's opinion, most participants present limitations on this competence.

Social inclusion is influenced by their institutionalization, and it should be considered in next programs: training in real world. Nevertheless, all respondents were satisfied with social participation. *Physical well-being* domain also seems to improve after a psychomotor intervention especially in activities that requires balance and walking, needing less supports for this kind of activities [28]. This was a result shared by all respondents. Finally, the inexistence of differences in *rights* and *material well-being* domains may be explained by the non-stimulation of these areas in psychomotor intervention [5,6,8]. From the point of view of the proxies the significant differences were more evident in group 1, in almost all domains except for *rights, physical well-being and material well-being.*

There were moderate correlations between 3 constructs [19,20]: significant but negative correlation between supports needs and adaptive behavior/QoL and a significant but positive correlation between adaptive behavior and QoL [15,17,18]. Correlation coefficients between adaptive behavior and supports were stronger than other analysis. Adults with ID with higher adaptive performance are more functional, need less supports and score higher QOL indexes. Nevertheless it should be emphasized the relation between supports needs vs. support provided alignment for opportunities for choice and decision-making [21]. It is interesting to highlight that the domains with a consistent weak correlation were *language development, domestic activity and socialization*, eventually explained by the fact that in P-SIS these domains are summarized to one or two items, or do not have a significant impact on persons with ID' lives, or are lacking of support in these areas [4]. *Numbers and time* domain seems to have a significant impact at the level of work/employment, as expected.

In the analysis of the relationship between the self-report (QOL) and the P-ABS, the domains that seem to have the most impact are: *numbers and time*, *language development* e *pre-vocational activity.* Proxies also add the *independent functioning, physical development* and *domestic activity.* There were marginal values with the domains *pre-vocational activity*, *self-direction*, *responsibility* and socialization [4]. The correlation coefficients between P-SIS and QoL seems to highlight the impact of *personal development* and *rights* with the need for more support [4,32]. The *material well-being* which also appears correlated with the *community living, lifelong learning activities,* and *social activities* [4,32], as well as the correlation between the overall QOL index and *employment activities* seems to contradict other studies [4,20]. The three constructs, although complementary are distinct [4,19,20] and the identification of their relationship assume a significant role in changing attitudes and practices, redirecting attention to strategies and services that enhance the quality relationship between the person and the environmental demands, i.e.: individual life plans should involve diverse domains and areas, whose prioritization must be the responsibility (shared) of the person with ID.

Conclusion

This research was carried out with the objective of contributing to the psychomotor intervention literature, analyzing this intervention support as a mediator between the current performance and what the individual is expected to have [3], in the congruence between capabilities and involvement requirements [21]. The use of a multidimensional measurement methodology allowed 1) to obtain more and

better information, 2) the identification and prioritization of the goal to be developed and which were more valued by the participants themselves [3,4], 3) the effectiveness of the psychomotor intervention. All interventions and programs should be framed by the QOL indicators, transversally and along the path of the person, in the estimation of short- and long-term results. Based on results, it seems to be possible to affirm the reciprocal relationship between adaptive behavior and support needs. Participants with higher adaptive performances seem to have less need for supports and better levels of QoL [20,30].

Psychomotor intervention should be based on a validated conceptual model, placing the person as a central focus, basing all intervention on the person's characteristics (abilities, support needs, preferences and motivations, among others) through a multidimensional and valid approach, aiming to identify facilitators and barriers (which should be minimized) to improve personal outcomes. Supports provided should be adjusted individually, contributing to meet needs and desires, increasing personal control and adaptive performance for real and effective community participation, reducing the "distance" between (the limitations of) the person and the context through change monitoring processes [3].

This study has some limitations that restrain the generalization level: the reduced sample size which was confined to a geographic space suggest the need for more replication programs, with a more robust sample and taking in consideration different variables (age, gender, medication …) at national level. The short duration of the program, which only was focused on some areas, may suggest that the increase of sessions' frequency in more long programs. The implementation of at least part of the program in real context and a broader teamwork for a more concerted and contextualized action is other idea. Our final suggestion goes for the need of follow-up studies.

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