

**AUTONOMY SUPPORT, BASIC NEEDS SATISFACTION, MOTIVATION
REGULATION, AND WELL-BEING AMONG ELITE LEVEL BALLET DANCERS
IN RUSSIAN SPEAKING COUNTRIES**

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ABSTRACT

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The aims of the present study were to adapt and translate ten scales measuring the motivational sequence to test the self-determination theory within Belarusian and Russian elite level students and professional ballet dancers and to investigate the validity and reliability of the scales. Another aim was to study if there are differences between the groups of the participants, genders, and professional levels in measured variables. Moreover, the relationships between the variables were studied. 116 ballet dancers aged between 12 and 49 (27 males, 60 females) participated in the study. The scales were translated and backtranslated from English into Russian language. The measures were: the scale of The Behaviour Regulation in Sport Questionnaire (Londsdale, Rose & Hodge); The Athlete Burnout Questionnaire (Raedeke & Smith, 2002); The General Self-Subscale of the SDQ-II (Marsh, Parker & Barnes, 1985); Brief measure of Positive and Negative Affect (PANAS; Watson, Clark, & Tellegen, 1988); Self-reported physical symptoms (Emmons, 1992); Health Care Climate Questionnaire (Williams, Grow et al., 1996, as adapted by Reinboth, 2004); The Internal Perceived Locus of Control aspect of autonomy (Sheldon, Elliot, Kim & Kasser, 2001); Dancer perception of dance engagement (Daci et al., 2001); The Acceptance subscale for the need of Relatedness Scale (Richer & Vallerand, 1998); Competence Subscale of the Intrinsic Motivation Inventory (McAuley, Duncan & Tammen, 1989). All the concepts of the Self-Determination Theory (Deci & Ryan, 1985, 1999, 2000) were measured: social factors, psychological needs (autonomy, competence, relatedness), motivation regulation, indicators of well-being. Construct validity of the scales was analyzed by using exploratory factor analysis. Reliability of measures was examined with α of Cronbach. One-way analysis of variance between the groups of participants and post hoc test were used to compare the groups, and two-way ANOVA analysis of variance was applied to perform estimate differences between genders and professional levels of the dancers. Relationships between the variables were examined by using 2-tailed Pearson and Spearman product moment correlations.

The factor structures of the Russian scales were similar to the original scales. However, some minor adjustments were made. Reliability of all measures was on high level. We found significant differences between the groups, where the Belarusian dance students were the most distinctive to professional dancers from St Petersburg. The students perceived more autonomy support than the employed dancers, they had a better level of satisfaction of autonomy than Russian professionals and exhibited significantly higher levels of both intrinsic and controlled motivation than professionals overall. Furthermore, there were significant differences in seven variables on the bases of the professional level: students revealed higher scores on autonomy support, satisfaction of the need for autonomy, and all autonomous and controlled motivation forms, but lower in amotivation in comparison to professionals which confirms our predictions. External regulation was higher in males; but satisfaction of the need for relatedness, identified regulation and self-esteem were higher among female dancers. We did not find evidence for our suppositions in difference in autonomous motivation between the genders, however higher extrinsic motivation among males was unexpected in light of earlier studies in move-related settings. Correlations were studied separately in students and professionals. They were meaningful and supported the self-determination theory in ballet dancing settings in Russian speaking countries.

Keywords: self-determination theory, perceived autonomy support, basic psychological needs, ballet dancing, gender differences, Russian speaking countries.

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1 INTRODUCTION

People have always been interested in how to motivate others and how to help them be more effective. Historically post-soviet bloc countries were famous for their totalitarian regime and autocratic style of communication where authorities did not leave choice to subordinates and the collectivist values were the most important. Such consumer attitude towards people known as “there are no irreplaceable” was spread on many areas of soviet life, including sports, arts and ballet dancing which were used to show superiority of the system occupied in the USSR in order to succeed with this goal the value of a single person was not considered. Therefore, pressure, fear, and control were seen as the most productive incentives for decades. Even though the Soviet Union does not exist after 1991, the methods settled and elaborated during years are still applied in many life domains, especially where USSR was traditionally ahead like sports and ballet. Some ballet-masters express their confidence that only “tough” training with similar attitude can make an outstanding dancer together with a talent.

In contrast to such supposition, Deci and Ryan developed the self-determination theory (SDT; 1985, 2000), which is designed around the concept of social support. According to their beliefs, socially supportive environment ensures satisfaction of basic needs in autonomy, competence, and relatedness, which positively influence well-being and social development (Ryan & Deci, 2000). Research done in the sport-related environment has shown that basic needs satisfaction, as a result of a supportive environment, reinforces self-determined behavior regulations (Deci, Vallerand, Pelletier, & Ryan, 1991) and subsequently brings positive indicators of health such as subjective well-being and self-esteem (Deci, Vallerand, Pelletier, & Ryan, 1991; Reinboth & Duda, 2006).

A range of scientific evidence has proved the applicability of the SDT to optimal functioning in various contexts such as work environment (e.g., Deci, Ryan, Gagné, Leone, Usunov, & Kornazheva, 2001), parenting (e.g., Assor, Roth, & Deci, 2004), education (e.g., Deci, Vallerand, Pelletier, & Ryan, 1991) and health care (e.g., Williams & Deci, 1998). Moreover, the physical domain has been tested in application to SDT framework as well: physical education (e.g., Standage, Duda, & Ntoumanis, 2003; Hagger, Chatzisarantis, Barkoukis, Wang, & Baranowski, 2005), sport (e.g., Reinboth & Duda, 2006), and exercise (e.g., Hagger & Chatzisarantis, 2008). However, the field of dance has not been researched correspondingly. The problems caused by low self-esteem and negative self-image indicate lack of social support in this specific dancing setting (Quested & Duda, in press) and make the

profession particularly attractive for testing SDT. Ballet dancing is fairly associated with a specific demanding environment that requires a lot of efforts and commitment from participants. The level of self-esteem, negative body image, eating disorders, burnout and anxiety are extremely high among dancers (Bettle, Bettle, Neumärker, & Neumärker, 2001; Qvested & Duda, in press). All these evidence invited us to start the present study within a broader cross cultural project, and is based on earlier research by Qvested and Duda (2009, in press). The research is conducted in different countries to explore fundamentality of SDT across cultures.

We think that the example of Russian ballet being acknowledged all over the world for its high professional level in technique and marvelous performance emerges to be interesting for research purposes, since traditional school implies application of an autocratic style in learning and management processes as well as demanding physical activity by itself. Hence, there is a case to argue that in some instances dance environments do not lead to the satisfaction of basic needs and contribute to dancers' personal growth and welfare (Ryan & Deci, 2000). Moreover, an absence of studies done in this field in Eastern Europe indicates a need for current study. Consequently, examination of the situation in psychological atmosphere, motivational patterns and health-performance consequences in Russian speaking countries can contribute for further scientific work and elaboration in this field.

To fill the void in research, the purpose of this study is to test the generalizability of SDT in the settings of ballet dancing in culture of former Eastern Bloc countries represented by Belarus and Russia.

2 SELF-DETERMINATION THEORY

2.1 Motivation Definitions and Self-Determination Continuum

Motivation is a psychological state sometimes described as a need, desire or wish that serves to activate or energize behaviour, determines its persistence, continuing, intensity, and performance (Biddle & Mutrie, 2001). It has been repeatedly reported as a key element of athletes' success in sports (Gould, Dieffenbach, & Moffett, 2002) and exercises persistence (Biddle & Mutrie, 2001), therefore motivation research in dance settings turned out to be its logical sequel.

Intrinsic (doing something for its own sake) and extrinsic (doing something as a means to an end/reward) motivations have been especially highlighted in studies done in sport and physical activity area (Vallerand, Deci, & Ryan, 1987). However, the current study is focused on the leading contemporary motivation theory- SDT (Deci & Ryan, 1985, 2000) that proposes the whole continuum of motivation from intrinsic (the most autonomous) to extrinsic (the least autonomous) ending in amotivation (lack of motivation) rather than simply opposing them to each other (extrinsic and intrinsic).

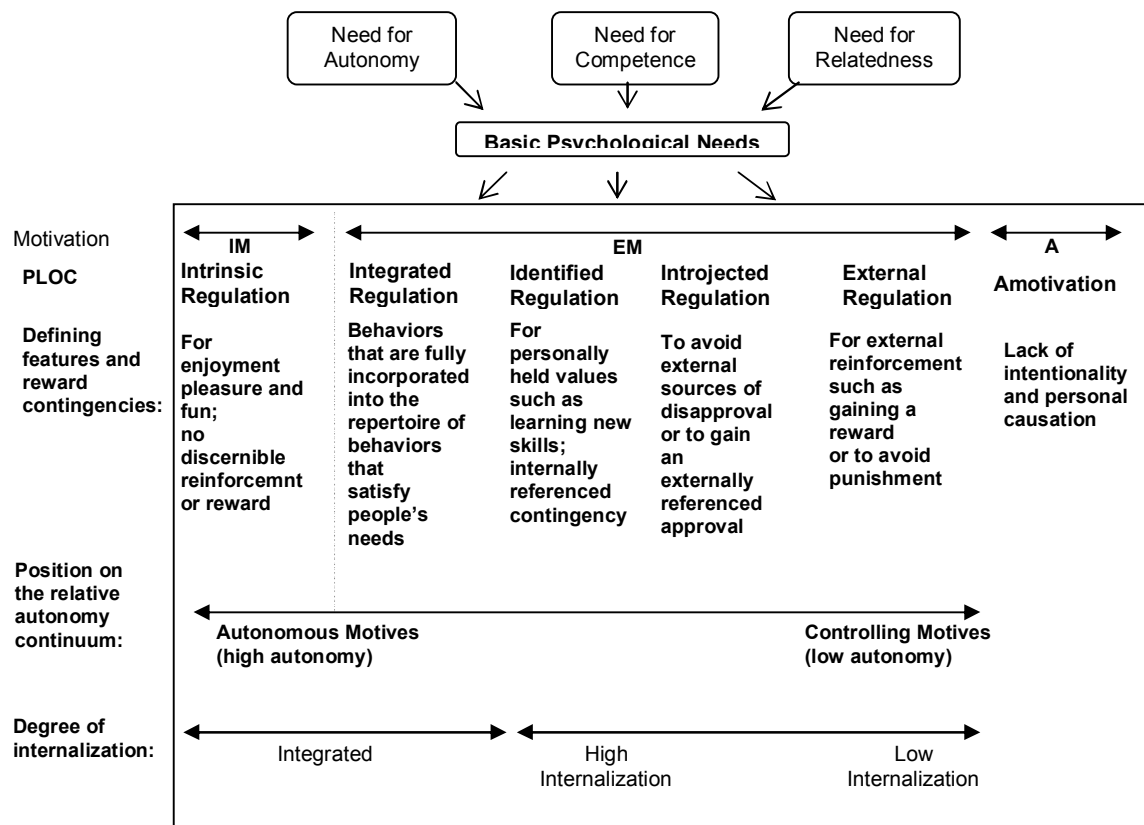


Figure 1. The Self-determination continuum and forms of motivation regulation (Chatzisarantis & Hugger, 2007)

Intrinsic motivation refers to performing an activity for itself and the pleasure and satisfaction derived from participation, for the satisfactions inherent in the activity (Ryan & Deci, 2000). To paraphrase, intrinsic motivation concerns an innate propensity of the organism, rather than being extrinsically propelled and directed. This phenomenon refers to the fact that the rewards for an activity are inherent in the activity rather than being instrumental to the reduction of biological drives. Therefore, intrinsically motivated actions are energized by psychological satisfactions (not biological needs), specifically effectance or competence (Ryan & Deci, 2007). Three types of intrinsic motivation were identified by researchers: to know, to accomplish and to experience stimulation (Deci, Vallerand, Pelletier, & Ryan, 1991; Vallerand, 2007). Intrinsic motivation to know refers to engaging into an activity for the pleasure and satisfaction that one experiences while learning, exploring something new, while intrinsic motivation to accomplish things associates with pleasure to attempt to create or accomplish something (Pelletier & Sarrazin, 2007). Finally, intrinsic motivation to experience stimulation perceives experiences enjoyment of pleasant sensations as a part of an activity.

Even though the design of the intrinsic motivation experience can be shaped in various ways, the basic concept of intrinsic motivation accents the process of activity, which means task orientation. It leads an athlete to experience pleasant emotions, such as enjoyment, freedom, and relaxation (Vallerand, Deci, & Ryan, 1987). Hence, intrinsic motivation is the most autonomous in the self-determination continuum, fully self-regulated behaviour.

An increased attention to this form of motivation can be explained by a range of evidence that states its positive outcomes in various areas including the sport and exercise settings. Among them should be mentioned positive emotions (Pelletier et al., 1995; Reinboth & Duda, 2006), minimal tension and pressure (Vallerand, 2001), enhanced performance, greater persistence and creativity (Vallerand, 2007), enhanced purpose in life (Deci & Ryan, 2000), higher interest and satisfaction, excitement and confidence (Ryan & Deci, 2000), heightened self-esteem (Deci & Ryan, 1995), general well-being (Deci & Ryan, 1991), longer careers in sport (Chatzisarantis & Hagger, 2007; Ryan & Deci, 2000).

Extrinsic motivation refers to activity performance in order to obtain a separate outcome (Ryan & Deci, 2000). Extrinsically motivated person can accomplish an action as means for achieving a goal or a reward. According to Deci and Ryan (1985, 2000) four types of extrinsic motivation differ to the level of self-determination in their nature. A behaviour regulated

through external means such as rewards and constraints represents the first type of extrinsic motivation- external regulation (Pelletier et al., 1995). Introjected motivation is exposed when the actor begins to internalize the reasons for his or her actions, however experiencing self-imposed pressure of guilt or anxiety (Vallerand, 2007). Identified regulation can be performed by ones who freely perform an activity even if it is not pleasant in itself. At this stage an activity is completed out of choice for the first time because the behaviour is observed as important nevertheless it does not gives pleasure. For instance, to be able to perform successfully on the stage a dancer willingly follows excessive trainings and rehearsals to contribute to his professional growth and development. Finally, the most intrinsic and autonomous form of extrinsic motivation is integrated regulation that occurs when an individual engages in an activity out of choice. This choice represents a pleasant part of the individual's self. An individual's choice is made as a function of their coherence with other aspects of the self (Vallerand, 2001). If, for instance, a dancer scheduled training for himself to work at a difficult move alone but he is invited to the cinema, he will choose exercises since otherwise he will not enjoy the movie feeling guilt. Despite the fact of usual preference towards goal-oriented behaviour especially in performance related areas like sports, Martens and Webber (2002) showed that extrinsic motivation was linked with such negative outcomes as increased pressure, a shorter athletic career, higher dropout from sport, and increased state anxiety.

So the level of incorporation of the motives from outer into inner site increases with each type discussed. Nevertheless, sometimes the process of attribution of motivation to a particular type turns to be more complicated which can be explained by its multidimensional nature and lack of ambiguity.

The last and extreme motivational type of the continuum is *amotivation*. It refers to the lack of intentionality and thus the relative absence of motivation (Deci & Ryan, 2008). One can be amotivated when feeling incompetent to do an activity or because it does not lead to a desired outcome, consequently one can feel that the act has no value, either instrumental or intrinsic, and thus be amotivated (Markland & Ingledew, 2007). This motivational type provokes a range of negative experiences and consequences, while intrinsic is associated with more favorable results and extrinsic with both. However, motives for an activity rarely are purely extrinsic or intrinsic; rather they are embodied in a multiple complex that is not simply represented by amotivation, extrinsic or intrinsic. In such context there is an autonomy continuum where amotivation is an extreme minimum of autonomous motivation and intrinsic

motivation represents its absolute maximum (Ryan & Deci, 2007). Amotivated people experience feelings of incompetence and expectancies of uncontrollability. They are relatively without purpose with respect to the activity and consequently have neither intrinsic nor extrinsic motivation to perform it (Vallerand, 2007).

Such multidimensionality on the one hand and integrity on the other hand was used by Deci and Ryan in their theory, which adopted its name from the self-determination continuum (1985, 2000). Multivariate perspective of motivation discussed above underlines complexity of the phenomena and refuses plain approach to the reasons of people's behaviour and expresses its multilayer design where motivational variables not only differ in their degree of self-determination (autonomy), but also can contain controversial characteristics. For instance, research evidence of SDT applications have shown that elite athletes display very high levels in both extrinsic and intrinsic forms of motivation (Chantal, Guay, Dobрева-Martinova, & Vallerand, 1996, as cited in Hagger & Chatzisarantis, 2007). Therefore, it seems that different types of motivation may coexist in elite athletes and elite level dancers.

2.2 Meta-Theory of Self-Determination

Theories and research models until 1960s focused on the reactive role of humans in their relationship with environment; however works of Weiner, Angyal, Harlow, and deCharms uncovered a new perspective (an organismic approach) and grounded a basis for appearance of SDT later. The results of their investigations stated that the innate needs of competence, autonomy and relatedness were important in leading the person to be proactive in exploring the environment (Vallerand, 2007). According to the organismic approach individuals are actively engaged and proactive in their interaction with the environment because people are inherently motivated to feel connected to others within a social environment (relatedness), to function effectively in the environment (competence), and to feel a sense of personal initiative while doing so (autonomy) (Deci & Ryan, 2000).

Hence, the authors of self-determination theory (SDT; Deci & Ryan, 1985, 2000) continued the work of early need theorists. However, SDT (Deci & Ryan, 2000; Ryan & Deci, 2000) in contrast with previous theories has maintained that there are different types of motivation - self-determination continuum - and the type of motivation is generally more important than the amount in predicting life's important outcomes (Deci & Ryan, 2008). Autonomous motivation involves behaviour with a full sense of volition and choice (intrinsic type),

whereas controlled motivation involves behaviour with the experience of pressure and demand toward specific outcomes that comes from forces perceived to be external to the self (external type). Therefore, self-determination (or autonomy) is a notion reflecting an individual's engagement in an activity. It is a quality of human functioning that involves the experience of choice. That corresponds to central SDT postulate of the distinction between self-determined or autonomous forms of motivation relative and non-self-determined or controlling forms of motivation (Hagger & Chatzisarantis, 2008). Self-determination is integral to intrinsically motivated behaviour and is also observed in some extrinsically motivated behaviour. Thus, it is the capacity to choose and to have choices, rather than reinforcement contingencies, drives, or any other forces or pressures, that are the determinants of one's actions (Deci & Ryan, 1985). Likewise, Chirkov presented the studies confirmed that the social environment conferring the freedom of choice to a person, allows him perceive being self-determined, followed by locus of casualty internalization, which consequently increase intrinsic motivation (1995).

According to SDT people are by nature active and self-motivated, curious and interested, vital and eager to succeed because success itself is personally satisfying and rewarding (Hagger & Chatzisarantis, 2008). The theory recognizes, however, that people can also be alienated and mechanized, or passive and disaffected. These differences are taken into consideration in terms of motivation types (self-determination continuum), which result from the interaction between people's inherent active nature and the social environments that either support or thwart that nature. More specifically, resulting from empirical methods and inductive reasoning, the theory has proposed that all humans need to feel competent, autonomous, and related to others (Deci & Ryan, 2000). Social contexts that facilitate satisfaction of these three basic psychological needs will support people's inherent activity, promote more optimal motivation, and yield the most positive psychological, developmental, and behavioural outcomes (Ryan & Deci, 2000). In contrast, social environments that thwart satisfaction of these needs provide less optimal forms of motivation and have deleterious effects on a wide variety of well-being outcomes.

The self-determination theory is an approach to human motivation and personality that uses traditional empirical methods while employing an organismic meta-theory that highlights the importance of human's evolved inner resources for personality development and behavioural self-regulation (Ryan, Kuhl & Deci, 1997). It focuses on the degree to which human behaviours are volitional or self-determined (Deci & Ryan, 1985). So the aim of the SDT is to

investigate people's inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as the conditions that foster those positive processes.

SDT is prominent among motivational theories and has received much attention in the literature on exercise behaviour (Ryan & Deci, 2008). As mentioned before, it is a meta-theory comprising three sub-theories that seek to explain human motivation and behaviour based on individual differences in motivation orientations, contextual influences on motivation, and interpersonal perceptions (Hagger & Chatzisarantis, 2008). Each component theory will be discussed in more detail further to give a wider perspective of the mechanisms.

2.2.1 Cognitive Evaluation sub-Theory

The Cognitive Evaluation sub-Theory (CET) outlines the environmental or contextual contingences that either support or thwart self-determination. Deci and Ryan (2000) suggest a mechanism of a shift in actors' perceptions of the cause of *their* behaviour. According to it, a person no longer performs an action for intrinsic reasons since his or her perception switches from motives subjectively perceived as emanating from the self (intrinsic) to being perceived as originating outside the self (extrinsic) (Hagger & Chatzisarantis, 2008). Hence, such external contingences as rewards, money or fame will give an undermining effect on one's behaviour since the reward significantly lowers the levels of intrinsic motivation. However, this negative effect can be offset by the informational function of the reward when the latter is presented as competence informative rather than behavioural contingent meant to evoke a particular act.

The theory argues that social-contextual events that lead to feelings of competence during action can increase intrinsic motivation (Frederick & Ryan, 1995). To paraphrase, intrinsic motivation is maintained by feelings of competence and the anticipation of challenge, therefore feedback that enhances an individual's feeling of competence is expected to enhance intrinsic motivation. Feedback, rewards or other communication effects depend on their functional significance as described before. This means that the way the feedback and rewards are provided forms the perception of the role the actual actor plays in evaluated behaviour, which either reinforces intrinsic motives so that the behaviour will be perceived as autonomous or undermine it as a controlled one. If we extend the CET basic beliefs to elite ballet dancing, it is reasonable to expect similar high rate of ego orientation in such context as

well as in sports. This is characterized by a fear of punishment at the rehearsals and performances and keeping focus on winning the leading part, and fame (external factors), resulting in lower levels of self-determination, and consequently lower levels of intrinsic motivation.

2.2.2 Organismic Integration sub-Theory

The Organismic Integration sub-Theory (OIT) explains the processes by which people 'take in' or internalise behaviours that are initially performed for controlling or non-self-determined reasons and integrate them into their sense of self so that they are performed for more autonomous or self-determined reasons (Hagger & Chatzisarantis, 2008). This sub-theory extends CET since it suggests implication of extrinsic (controlled) forms of behaviour in internal site. This statement associates with self-determination continuum and the types of extrinsic motivation that differ in the degree of autonomy or self-determination they express. Thus, OIT seeks to provide an explanation for the processes by which people assimilate behaviours that are externally regulated and to incorporate them into self-determined repertoire integrated into their personal system. To put it in another way, it explains the mechanisms of self-integration and the process of changing perception of the motives from more controlling to more autonomous (internalizing them into an inner perspective and self). Consequently, the perceived locus of causality appears to be central for OIT, that represents a graduated continuum of motivational styles or regulations, rather the polar distinction offered applied in CET (Ryan & Connel, 1989). To refresh the sequence of the autonomy continuum (perceived locus of causality continuum) goes from the autonomous pole to the controlling one where the types of regulation adjacent to each other in a simplex-like pattern of intrinsic, identified, introjected and external regulation (Ryan & Connel, 1989).

Research studying perceived locus of causality has shown that autonomous forms of regulation are positively related to adaptive behavioural and psychological outcomes in domain of exercise. Autonomous motivation is associated with exercise behavioural engagement and adherence over time (Gagné & Blanchard, 2007), perceived competence and exercise intentions (Hagger, Chatzisarantis, Hein, Pihu, Soos, Karsai, Lihtunen, & Leemans, in press; Hagger, Biddle, Chow, Stambulova, & Kavussanu, 2003; Chatzisarantis & Hagger, 2007), flow state and psychological well-being (Hagger & Chatzisarantis, 2008).

Environmental antecedents such as autonomy support and people's perceptions that the motivational context is supportive of their autonomous motivation (Hagger et al., 2003, 2005), have also been linked with autonomous motivational regulations. Autonomous forms of motivation mediated the effect of perceived competence on exercise intentions, suggesting that competence perceptions affect behaviour because competence perceptions tend to be self-determined in nature (Hagger & Chatzisarantis, 2008).

2.2.3 The Basic Psychological Needs sub-Theory

The Basic Psychological Needs sub-Theory (BPNT) provides a framework for explaining the origins of self-determined forms of motivation based on innate psychological needs. As it has been touched upon in earlier section, using the empirical process and basing on previous need studies, Ryan and Deci (2000) suggest that the origins of self-determined motivation stem from individuals innate propensity to satisfy three basic psychological needs: autonomy, competence, and relatedness. Competence refers to the need to control outcomes and to be efficacious in an environment. Autonomy reflects individual attempts to be the self-determining agent of one's own attitudes and behaviours. Relatedness expresses the urge to be in a relationship with others, caring for others, and being cared for in turn. Deci and Ryan (2000) specify needs as "innate psychological nutrients that are essential for ongoing psychological growth, integrity, and well-being". Those needs seem to be essential for facilitating optimal functioning of the natural tendencies for inner growth and integration, as well as for constructive social development and personal well-being. These nutrients are basic psychological needs, which are innate, universal, and essential for health and well-being. Moreover, optimal functioning and truly integrated behaviour can only result if all three psychological needs are supported (Hagger & Chatzisarantis, 2008). This means that satisfaction of a single need will be insufficient for effective functioning. For instance, competence along with a perception of acting in accordance with a true sense of self, without external contingency and out of choice and volition (autonomy) but lacking support from others (relatedness) will result in a failure for an action to be fully internalised and to satisfy basic psychological needs.

BPNT is linked with the OIT because it charts the origins of autonomous or self-determined motivational regulations. It argues that in contrast to 'classic' definition of intrinsic motivation, people can perform an activity to achieve an intrinsic 'outcome' of satisfying

basic psychological needs through internalized behaviour, which is highly valued and perceived as part of the person's 'true self' (Hagger & Chatzisarantis, 2008).

Hence, SDT is designed around the concept of social support (SDT, Deci & Ryan, 2000). The theory states that socially supportive environment ensures satisfaction of basic needs in autonomy, competence, and relatedness, which positively influence well-being and social development (Ryan & Deci, 2000). Research done in the sport-related environment has shown that fundamental needs satisfaction as a result of a supportive environment reinforces self-determined behavior regulations which consequently effect well-being and self-esteem (Deci, Vallerand, Pelletier, Ryan, 1991; Reinboth & Duda, 2006). Therefore, it is supposed that social-contextual events leading to feelings of competence during action can increase intrinsic motivation, where optimal challenge, positive-encouraging feedback, and avoiding negative evaluations should be followed by enhancement of determination, performance, and well-being (Ryan & Deci, 2000), since according to OIT and CET the social context can either support or thwart the natural tendencies. Hence, optimal development and well-being are produced by facilitating conditions that support needs satisfaction.

2.3 SDT Applications

2.3.1 Cultural Applications

SDT views the person as an active growth-oriented organism attempting to actualize his or her potentialities within the environment in which he or she is functioning. This inherent tendency towards actualization, personal growth, development and optimal functioning can be associated with a client-centered therapeutic approach offered by Carl Rogers (Patterson & Joseph, 2007) Hallmarks of Roger's humanistic theory include social support provided to the client, unconditional acceptance and authenticity. It is stated that social development can proceed only in such an environment where a person can freely express himself, behave according to his values, beliefs and emotions regardless cultural differences.

Due to SDT concept of organismic integration people can feel autonomous while being extrinsically motivated that was explained earlier (internalization of the motives). Similarly, other organismic theories (Rogers, 1980; Piaget, 1971) view development as the process through which humans internalize, elaborate, refine, and integrate inner structures or representations of themselves and their world (Deci & Ryan, 2008). However this process is

presented as natural, SDT emphasizes that internalization and integration will function more or less effectively, depending on the degree to which organisms experiences ambient supports for basic psychological need satisfaction. That is, people are inclined internalize and integrate within themselves the regulation of activities that were initially and/or regulated by external factors. However, for this process to operate effectively, people must experience satisfaction of the basic psychological needs which is one of the central assertions of SDT. It postulates that the basic psychological needs for relatedness, competence, and autonomy are universal- that is, important for all cultures (Deci & Ryan, 1985, 2000, 1991, 2008; Deci et al., 2001; Ryan et al., 1999).

On the contrary, the cultural-relativist view held by many cross-cultural psychologists (Markus & Kitayama, 1991; Markus, Kitayama, & Heiman, 1996; Ryan & Deci, 2006), which maintains that needs are learned within cultures. In particular, cultural relativists argue that autonomy is a Western idea that is taught in Western cultures focused on individualism but is not important in Eastern cultures such as Asian countries. They also deem that relatedness is the important need in cultures that emphasize collectivism and interdependence. The SDT view, however, suggests nevertheless cultures influence people in profound ways but that all humans have certain needs (Deci & Ryan, 1985, 2000). The way the needs tend to get satisfied may differ by culture, but the fact of their needing to be satisfied for people to experience optimal well-being does not depend on culture (Deci & Ryan, 2008).

However, Deci & Ryan (2000) define needs as nutriments essential to growth, integrity, and well-being. As essential supports, needs are expected to have a functional impact whether or not they are valued, and whether or not they are specifically sought after. This is, even if people do not value a need, they will show negative effects in terms of motivation and wellness if they do not satisfy it and will show enhancement if they do satisfy it (Deci & Ryan, 2007). SDT specifically posits the universal and cross-developmental significance of need satisfaction for optimal functioning, even while recognizing that cultural values and practices associated with needs vary greatly.

Numerous specific studies in varied cultures are consistent with the universality of basic needs for autonomy, competence, and relatedness. SDT conception can be applied to Eastern cultures just in the same way as in Western cultures (Deci & Ryan, 2007; Deci & Ryan, 2008; Hagger et al., 2003; Hagger et al., in press; Ryan & Deci, 2006). For instance, the evidence gathered in Russia by Ryan and et al. (1999) reckoned that strong extrinsic motives, which are

associated with lower autonomy, were predictive of poorer psychological well-being. Ryan, La Guardia, Solky-Butzel, Chirkov, and Kim (as cited in Deci & Ryan, 2008) found that reliance on others was facilitated across varied cultures, later similar evidence were presented in other studies regarding autonomy and competence. Hence, despite surface differences in cultural values, underlying optimal motivation and well-being in all cultures are very basic and common psychological needs and their common effects towards well-being (Chirkov & Ryan, 2001).

Other research uncovered that having more internalized cultural values and enacting them more autonomously was associated with greater psychological health whether it was in South Korea, Russia, and Turkey, or the United States (Chirkov, Ryan, Kim, & Kaplan, 2003). To put it in another way, cultural values (collectivist or individualist) get internalized according to SDT sub-theory (OIT), and an opportunity to act according to internal motives and values (satisfaction autonomy need) appears to be vital for psychological health. Therefore, people can be autonomous or controlled in pursuing either collectivistic or individualistic goals, and the relative autonomy of one's goals is strongly related to adjustment and health (Deci & Ryan, 2007).

2.3.2 Educational Applications

Social support is recognized as an important element of SDT which states that promoting greater self-determination relating to target individuals by taking their perspective, encouraging initiation, supporting a sense of choice and being responsive to their opinions enhances autonomous internalization and intrinsic motivation which should result in increased creativity, cognitive flexibility and self-esteem (Deci & Ryan, 2008).

Autonomy support has been tested in many settings. The contribution of this approach to education cannot be overestimated. SDT was examined in applications for the processes of studying and learning where it was proved that "classrooms where autonomy supportive, students were more intrinsically motivated", moreover they felt more competent at schoolwork and had higher self-esteem (Deci et al., 1981). Vansteenkiste, Simons, Soenens, and Lens (2004) found that the autonomy-supportive style led to greater learning and performance outcomes than the controlling style did and that people who were given intrinsic goal framing with an autonomy-supportive style scored usually on the outcome variables. Therefore, research results are sufficient to deem the importance of autonomous regulation

and intrinsic goals for students' learning, performance, and psychological well-being (Deci & Ryan, 2008).

Such promising findings can be transferred to dance education like it has been done in academic or physical education settings (Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan & Deci, 2007). Supportive environment through interpersonal involvement (teachers, parents) by providing autonomy support and reinforcement stimulates internalization and integration of autonomous self-regulation (satisfaction of one of the basic psychological needs). If students are interested in learning, their self-perception, self-esteem and consequently self-determination are expected to be enhanced, which could be illustrated in well-being level and health outcomes. Moving further from provision of controlling regulation that undermine quality engagement towards autonomous one through fostering interest, volition and value result in greater persistent, better quality learning, and better well-being. The present study extends the application area of the SDT framework to dance students.

2.3.3 Sport and Exercise Domain Settings

Motivation is a key area for sport and exercise, which caused a large number of studies to be done with connection to such settings especially from SDT perspective. Vansteenkiste, Simons, Soenens, and Lens (2004) found that framing physical activities with intrinsic goals such as being healthier and more fit, enjoy playing rather than extrinsic goals (to be more attractive, to get a prize) and presenting the goal in an autonomy supportive manner lead to autonomous motivation for physical activity and persistence in exercise.

Reinboth and Duda (2006) focused on the relationships between perceptions of motivational climate, changes of the basic needs satisfaction and indices in well-being in team sports. The evidence showed that an increase in perceptions of the task-involving climate positively influence an increase in satisfaction of the needs for autonomy, competence and relatedness, which in turn emerge in psychological and physical well-being among adolescent athletes. The entire process of needs satisfaction positively affects self-determination and, then, well-being and self-esteem. However, an ego-involving climate is found as a negative factor for basic needs satisfaction; thus, it fails to produce the same health effect. To facilitate an athlete's well-being, the sporting environment should be marked in above described task-involving features. It is an important conclusion that can be used as a proof for the SDT and offers useful advice for the dance learning enhancement as well.

The study done by Sarason, Pierce, Shearin, Sarason, and Waltz (1991) stated that perceived social support, but not received one, is predictive of coping effectiveness, adjustment outcome and physical and psychological well-being. Perceptions of social support positively relate to self-perceptions and beliefs about others' views, and to relations with others. These findings uncover the role of personal relationships and self-perception in perceived social support that is the starting point of the motivational process.

Hagger and Chatzisarantis (2007) provided evidence that autonomy support from coaches, teachers, and parents all affect teenagers' autonomous motivation for physical activity and sport and satisfaction of their fundamental psychological needs. In addition, the satisfaction of these needs has been frequently associated with more self-determined behaviour regulations (Hagger et al., in press) and subsequently with positive indicators of health (subjective well-being and self-esteem) (Reinboth et al., 2004; Reinboth & Duda, 2006).

2.3.4 Dance Settings as SDT Application Target

Besides education, sports and exercise the elements of SDT have been examined in many field studies across such life domains such as parenting, health care (Williams et al., 1996), close friendships (Deci & Ryan, 2008; Deci & Ryan, 2007) where invariable autonomy support from significant others had a positive effect on the motivation, performance, and well-being of ones who received that autonomy support. However, the investigations grounded in this theoretical framework in the arena of dance have been scarce. Especially, this is true in regard to Eastern European dancers.

Dancing is a specific occupation that cannot be considered as sport or exercise, rather it is a complicated notion that contains features of physical activity and art. Dancers are encouraged to challenge their bodies up to their physical limits and to extend them to meet and exceed the demands of the aesthetic art and imagination of choreographer. Therefore, physical fitness and high level of dancing technique are perused by a qualified dancer, which typically forces the dance learning environment to be demanding achievement settings in daily routine of trainings and rehearsals that often surpass 30 hours per week. Creativity is even more sensitive to opportunities to make choices, to feel competent, and to have a right for self-expression (Ryan & Deci, 2007). Lack of social support perceived from the environment consequently may result in low self-esteem and negative body-image which is often observed in dancing

settings. For example, body-image disturbances and low self-esteem have been implicated in the pathogenesis of eating disorders (Bettle, Bettle, Neumärker, & Neumärker, 2001).

Taking a perspective of SDT helps to make connections between this picture and the facts that dancers are more susceptible to eating disorders (Smolak, Murnen, & Ruble, 2000), have more negative body image and self-esteem than control groups (Bettle et al., 2001) and higher exercise dependency than athletes (Pierce, Daleng, & McGowan, 1993). Moreover, Ryan and Deci (2000) found that there is a case to argue that in some instances dance environments do not satisfy basic needs and fail to contribute to dancers' personal growth and well-being. Nevertheless little attention was given to the investigation of motivation among dancers and their basic need satisfaction, behaviours and physical and psychological health outcomes in relation to such a demanding atmosphere.

However, a major work of testing applicability of SDT framework to vocational dance settings has been done by Quested and Duda (2007, in press). Their studies indicated that features of social environment in dance settings (e.g., perceptions of the autonomy support provided and task- and ego-involving features of the motivational climate) predicted disparity in such well-being outcomes as affective states, emotional and physical fatigue and self-evaluative tendencies of young elite dancers (Quested & Duda, in press). Similarly, according to BPNS sub-theory of SDT framework fundamental needs satisfaction and self-determined motivation towards dance mediated the relationships between perceptions of the dance environment and indicators of physical and psychological health (e.g., body dissatisfaction, exhaustion, positive and negative affect, self-esteem). The understanding of the mechanisms described can be reflected with the model in Figure 2.

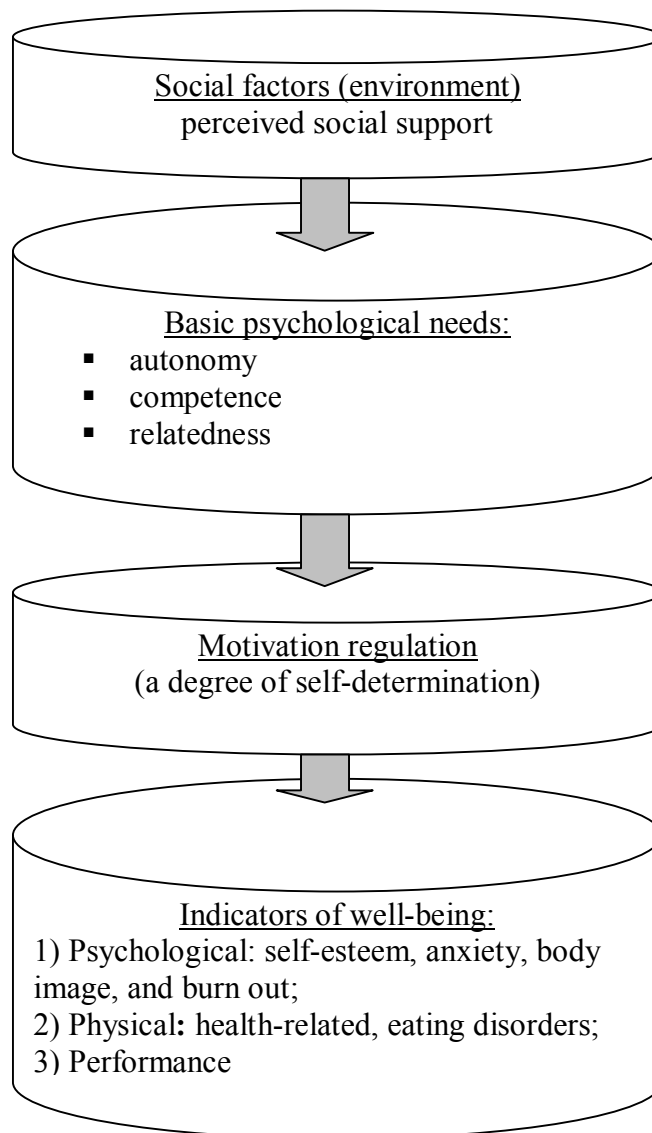


Figure 2. A model of SDT framework in application to dance setting

However, the sample of the above mentioned study applying SDT to dance domain included only British dancers. But the central tenet of the theory is that satisfaction of the three needs is essential for optimal human functioning regardless of the cultural, ethical or contextual setting (Deci & Ryan, 2000; Ryan et al., 1999). Therefore, the contribution of current study is to extend the tested sample and also to adapt the scales that will be used for these purposes in the culture of Russian speaking countries (Belarus and Russia).

2.3.5 Gender Perspective in SDT

The assertion of SDT universality was controversial notion not only for cultural perspective, but also for previous gender theories (e.g., Jordan, 1997), the latter hypothesized that

autonomy does not have any significance for females; therefore, women would suffer no motivational harm when controlled or coerced, and would experience no benefit when supported to act in accord with interests and values. However, this thesis was foreign for lots of philosophical concerns and other organismic frameworks such as self-endorsement of one's actions (Deci & Ryan, 2007). The ground for positivist frameworks associates with the gender differences in motivation and need satisfaction were associated with limitation of measurement (measuring differences in values or mean levels of satisfaction rather than functional impact).

We believe age have a big impact on gender differences, since they both have sociobiological nature changing over time with excelling social pressure. For instance, Dowson, McInerney, and Nelson (2006) studied students' motivational orientations in different schools and between genders. The result they got showed that there was a disparity in general motivation between genders, but it was not the most important force. School context differences were more salient than sex differences in determining students' motivational orientations. However, a study on adolescent ballet dancers found that male dancers did not differ from controls except for a lower score on the Body Mass measure, while female dancers showed a distinct tendency in their answers implicating less favorable body images and self-esteem (Bettle et al., 2001). Similarly, Cash, Novy, and Grant (1994) reported that since evidence reinforce consistent associations between body-related exercise motives and a negative body image, hence exercising for more extrinsic motives (appearance or weight management) was linked to less body satisfaction and greater body image disturbance among women, independently of actual body size as assessed by body mass index (Markland & Vansteenkiste, 2007). Therefore, women are more often suffering from social psychic anxiety, lower body satisfaction, than men. In the same volume Ingledeu and Sullivan (2002) found that this gender difference arose during adolescence. From the self-determination theory perspective, being driven to exercise because of body-related censors would ultimately undermine exercise adherence (perceived as controlling). Therefore, female teenagers tended to have more negative well-being outcomes associated with lower self-perception than male, which can be explained by social pressure and ,therefore, controlling (over autonomous) motives the first apply.

Specific dancing settings are particularly attractive for testing SDT since the problems caused by low self-esteem and negative self-image indicates lack of autonomy support in this occupation area (Quested & Duda, 2007, 2009). In addition, an absence of studies done in this

field in Eastern Europe indicates a need for the current study. Its purpose consists of adaptation of motivational scales and testing SDT in Russian-speaking countries female and male ballet dancers, such it will extend and confirm the main hypothesis of SDT in its fundamentally and universally application.

3 BALLET

3.1 Specific Settings of Ballet Dancing

Dance is both a creative and performing art that generally refers to movement of the body, and used as a form of expression, social interaction or presented in a spiritual or performance setting (Lee, 2002; Nagel & Miller, 1978). According to Kirsten and Stuart (1952) dance can be defined in various ways ranging from functional movement such as folk dance to virtuoso techniques such as ballet. Dance movements may be without significance in themselves (e.g., in ballet or European folk dance) or have a gestural vocabulary or symbolic system as in many Asian dances (Hammond, 1993). Interestingly, sports and dancing being distinctive in the nature have particular overlaps, for example, dance disciplines are incorporated into performance and training routine appear to be similar to most of sports such as gymnastics and figure skating, while martial arts are often compared to dances.

Regardless to a style every dance has something in common as beyond flexibility and body movement, it includes also physical aspects (Hammond, 1993). The physical complexity of the performance and preparation stand out when discussing ballet that is defined as a highly technical form of dance with its origins in the French court, further developed in France and Russia as a concert dance form, primarily accompanied with classical music (Dodd, 1980). Ballet dance works are choreographed, who designs the composition of movements, mime, and acting inspired by music. It is best known in the form of classical ballet, notable for its techniques, such as “pointe work” and “turn-out” of the legs, and its graceful, flowing, precise movements, and its ethereal qualities.

Dancing is a sophisticated solitary occupation area that requires consideration of the social influence. Nagel and Miller (1978) explain it in the light of dance theory, which deals with anatomical movements and partner interactions, and their associations to each other and to music as art. Therefore, dance theory explores the communicative, physical, mental, emotional, and artistic aspects of dance as a medium of human expression and interaction. In doing so various nuances between the dance genres and styles are analyzed with respect to their social settings and cultures.

Ballet has been influential as a form of dance globally and is taught in ballet schools around the world which use their own culture and society to modernize the art. Professionals distinguish the five most well-known styles of ballet are the Vaganova method (Russian

Method after Agrippina Vaganova), the Cecchetti method (Italian Method after Enrico Cecchetti), the Bournonville Method (Danish Method after August Bournonville), the Balanchine Method (School of American Ballet after George Balanchine), and the Royal Academy of Dance Method (R.A.D. Method created in the United Kingdom). The current study refers to the Russian method of Vaganova. We suppose that in-depth analysis and consideration of cultural and subcultural effects are important, therefore some contextual influences will be enlightened and embraced in the following sections.

3.2 Subculture of Ballet

As members of specific occupational community, dancers tend to internalize a particular value system. In the instance of ballet dancers, their *extreme body consciousness* would seem to be the most clear-cut example. In this way the study of ballet culture relates to the escalating interests, in several disciplines, in the body as a site of culture, and embodiment points to a paradox in recent sociological studies on the body: they contain very few ‘living bodies of flesh and blood’ that show different ways that social worlds form bodies and distribute them over the social structure (Wulff, 1998). This enhances their efforts for disciplining their bodies into the steps of classical ballet. Dancers internalize the dance, since the ballet dancer’s body is his or her instrument (Nagel & Miller, 1978). Therefore, dancers are totally dependent on their bodies, and on staying in shape at all times. By contrast with athletes, who build up a basic fitness that they improve before competitions, dancers who on their way upwards in their careers or who are anxious to keep an acquired position, constantly have to strive to upgrade the technique (Wulff, 1998). Taking the old saying ‘you are only as good as your last performance’ which keeps them in constant tense and forces to rehearse and train sometimes beyond their physical boundaries. In addition, a transiency of a ballet dancer career, high skill level of colleagues, and challenging demands of ballet dancing form competitiveness within community. Following SDT, such competitive environment increases extrinsic motivation, since the basic needs satisfaction is less probably to appear in such a context. Consequently, negative well-being outcomes can be observed more often, for instance, negative body image.

3.3 Russian Method and Dancing Environment

Nevertheless Russia came late to the dance scene, its contributions to the field of performing art appeared to be enormous. Diaghilev made “Ballets Russes” a symbol of quality and excitement all over the world (Bland, 1976). Russian approach to ballet – a version of it as a

real identification of music and movement, a medium of intense dramatic feeling and serious artistic content which would carry it far beyond court or commercial considerations. Russian style is known by its fluid, emotional choreography, plasticity and vitality of dancers (Dodd, 1980). The distinguished tradition of style and finish associated with the company was entrenched by appointment, as head of Leningrad school (St Petersburg nowadays), – of Agrippina Vaganova- an inspired teacher who set her stamp on the character of the whole organization (Bland, 1976).

The level and appreciation of Russian ballet remains unquestioned for a long time, still holding its leading part nowadays. While technical standards of performance initially had to reflect the superiority of the Russian Empire, later it was meant to be used to underline the excellence of the political regime in the USSR. During the Soviet Union existence the Vaganova method and Russian approach to teaching process were spread widely within its borders. Likewise, Belarusian ballet inherited its traditions from St Petersburg school and its international recognition. The Belarusian ballet theatre greatly owes its home and international recognition to its Artistic Director who was graduated from Academy of Russian ballet of the professor Vaganova, a graduate of the Academy of Arts in St Petersburg. Pursuing high standards in performance and skills among the artists at the theatre, the principle of the Belarusian ballet theatre gets involved also into the education of the young dancers at the elite choreography collage (the single one in the country). Remarkably, some collage alumnus dance not only in Belarus, but also at Mariinski Theatre in St Petersburg, in Moscow, and beyond Eastern Europe, which is a vivid evidence of their qualification.

Hence, the level of skills and recognition of both Russian and Belarusian ballet is extremely high and may lead to extreme external pressure of the environment as illustrated with words of one dancer that they “have no right for a mistake or let down”. Such demanding environment makes Eastern European ballet dancers to be especially interesting targets to test SDT concepts, taking into consideration the tradition of strict and exhaustive training routines both within the occupational perspective and the cultural one.

4 AIMS OF THE STUDY

To test the SDT model cross-culturally, we studied dancers in Belarus and Russia, countries that have traditionally had an autocratic politics and collectivist values. Self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2000), which posits universal psychological needs, suggests that humans will be motivated and display well-being in organizations to the extent that they get opportunity to experience psychological needs satisfaction within those organizations, yet the relevance of the theory to the dance-related workplace and dance educational settings has not been tested cross-culturally. The present study was designed as a step to test the generalizability of the theory to work organizations of varied cultures. Belarus and Russia were picked up because the dominant experiences of the dancers of these former Eastern Bloc countries have involved a totalitarian rather than democratic style of communication at workplaces and at school (Deci et al., 2001).

In line with the main standpoint of SDT, the purpose of the current study is to test the universality of the SDT framework (see Figure 2) in application to Eastern European ballet dancers. Therefore, lack of research in ballet, a conflict between outstanding skills of dancers originating from Russian-speaking countries and scarcity of similar research done in post-soviet countries provoked appearance of this paper to spread the central hypothesis of SDT to dance settings, affected from traditional autocratic management and learning.

The specific aims of the study are:

- 1) To translate and adapt ten motivational scales: The Behaviour Regulation in Sport Questionnaire (Londsdale, Rose, & Hodge, 2008), the Athlete Burnout Questionnaire (Raedeke & Smith, 2002), the General Self-Subscale of the SDQ-II (Marsh, Parker, & Barnes, 1985), the Brief Measure of Positive and Negative Affect (PANAS; Watson, Clark, & Tellegen, 1988), the Self-reported Physical Symptoms Questionnaire (Emmons, 1992), the Health Care Climate Questionnaire (Williams, Grow et al., 1996, as adapted by Reinboth, 2004), the Internal Perceived Locus of Control Aspect of Autonomy (Sheldon, Elliot, Kim, & Kasser, 2001), the Dancer Perception of Dance Engagement (Daci et al., 2001), the Acceptance Subscale for the Need of Relatedness Scale (Richer & Vallerand, 1998), the Competence Subscale of the Intrinsic Motivation Inventory (McAuley, Duncan, & Tammen, 1989) to be used in studies in Russian speaking countries.
- 2) To investigate the construct validity and the internal reliability of the scales.

3) To study if there are differences between genders and between dance students and professionals in perceived autonomy support, basic needs satisfaction, motivation regulation, or indicators of well-being.

Deci and Ryan's theory (1985, 2000) should fit to all groups of population. Therefore, we are interested in gender perspective in the sequence (Figure 2) and described relationships. The degree of perceived social support and need satisfaction, being mediated by motivation regulation, should assort with corresponding level of well-being outcomes. Findings from previous researchers associate with the supposition that the level of social support and demanding environment (e.g., body mass) will affect women stronger than men, and consequently, according to the model they will report more negative indices of health-related outcomes. However, the differences between genders in autonomous and controlling motives for dancing are expected to be insignificant. More likely we expect that the females and males are motivated and perceiving environment as autonomy supportive in dancing in similar ways rather the social context will stand out as a remarkable factor.

4) To test the SDT through studying relationships between the variables studied.

The theory was supported by numerous studies in different life domains including physical activity. We expect to provide evidence for the generalizability of the SDT to ballet dancing in Russian-speaking culture on the example of Russia and Belarus. Ballet dancing was ignored until recent time (Quested & Duda, in press), but previous studies in related settings showed consistency with SDT framework. According to the central hypothesis of the study, considering cultural background of two countries included into the study and the specific dancing settings which both tend to put pressure and maintain controlled regulation (e.g., fear of punishment, to a mistake, rivalry within the group for the part). In line with SDT, if the environment fails to provide autonomy support, it will block the basic need satisfaction (a positive correlation between perceived autonomy support and needs satisfaction). In turn, the latter should influence a motivation regulation since the more satisfied fundamental needs the closer regulation to autonomous versus controlled on the continuum. Finally, higher scores in controlled motivation regulation estimated to result in low positive well-being outcomes (positive affect and self-esteem) and high negative ones (burnout, physical symptoms, and negative affect). Operating the facts those ballet dancers suffer from number of negative

indices (e.g., eating disorders, negative body image) we expect to find the evidence in favour to SDT model (Figure 2).

5 METHODS

5.1 Translation Procedures

Each measure was translated into Russian according to the standard back translation techniques (Brislin, 1986) to develop Russian questionnaires. To complete the major goal of the international project led by Eleanor Qusted and Joan Duda who set questionnaires for the research in English. The original questionnaires (Appendices 1, 2, 3, pp. 97-109) had to be translated into Russian because these indicators have not been used in studies done in Russian speaking countries before. One of the aims of the study was to form valid questionnaires that can be used in Belarus and Russia. First, we translated questionnaires from English originals into Russian and then native English speaker back translated them. The back translated version was looked through by a professional translator and then sent to the experts, Qusted and Duda. This had to be done to make sure that the content of the questionnaires had not been changed while translating process, which was checked by the experts who discussed every item (if meaning remained consistent) and gave comments and recommendations according the questionnaire that were utilized to correct, improve and develop the final version. Only minor changes were needed.

After finishing translation and adaptation (in regard of the meaning and wording) of the questionnaire items to Russian language, a variety of participants was taken into consideration: the sample included both genders and two occupational levels of dancers (dance students and employed professionals), therefore the content of the items was corrected to fit those groups perfectly. In order to find weak points in the measurements, we conducted a pilot trail. The adapted questionnaires were tested at vocational Latino dancers and corrected according to their feedback about the formulation of the items in order to make the content clearer and to fit better to the dancing culture. The final version for theatre dancers is attached (see Appendix 4, p.110).

5.2 Participants

The initial idea was to adapt the scales and to test the SDT on both students and theatre dancers only in Belarus. However, the returning rate was quite low at the Belarusian leading ballet theatre; therefore, we decided to enlarge the sample of the professionals with the Russian ballet dancers of comparably high level since the ambition was to collect data from elite professional dancers which was succeeded.

Subjects for the study were recruited from full-time professional ballet dancers and students of choreography collage preparing for professional dancing career in Russia and Belarus. There were 116 participants aged between 12 and 49 (17.59 ± 7.5) (27 males, 60 females), who joined the study, representing two countries (Belarus ($n=95$) and Russia($n=21$)) and two professional levels (ballet dance students of the choreography collage in Minsk and professional dancers employed at the ballet theatres in St Petersburg and Minsk). The dancers were all specialized either just in classical ballet or both classical ballet and contemporary ballet (77 and 39, in respect). Furthermore, the genders were well represented in all groups at the degree that permits comparing and a deeper analysis based on gender factor. The frequencies were distributed with female artists exceeding almost twice as much male ones (39 and 77, correspondingly). However, the proportion permits us to examine gender as an influencing variable in application to well-being and environment perception in the context of SDT.

This sample was used for adaptation of the instruments (each scale and inventory were taken individually) to investigate its reliability and validity. The consequent statistical analysis presumed using the data listwise (the intercorrelations between the variables) squeezed out the participants who denied filling in the forms as required so that the examination of SDT cross-cultural and cross-contextual nature and its applicability was conducted elimination some suspicious cases. Six participants were omitted from the study.

Dance Students (Belarus)

The total number of the students studying at the college at the moment of collecting data for a research was 285, where two levels of education were present. The first level is a basic choreographic education (5-9 grades), but after completing the fifth year of studying, a student moves to the second level, which is an advanced choreographic education (I-IV years-students) which takes three years and ten months to be qualified.

The questionnaire was filled in by 87 Belarusian students, aged 12-17 (14.03 ± 1.21). Both males and females were represented quiet nicely in the group ($n=26$; $n=61$, correspondingly). Initially the sample consisted of 87 participants; however, two individuals appeared to be not motivated to complete the questionnaire meaningfully. Consequently, they were excluded from the study. The dancers were at different stages towards the goal to be graduated and become professional ballet dancers: they represented all the stages –general lower,

intermediate, higher (n=17, n=34 and n=28, in respect) and advanced (n=8). The collected data represents well all Belarusian dance students, who participate in professional training to become a ballet theatre dancer.

Professional Dancers (Belarus)

The National Academic Bolshoi Ballet Theatre of the Republic of Belarus accounts 75 ballet dancers in its troupe. There are three categories of the dancers involved principle dancers (13), soloists (7) and corps de ballet artists. Within the study were engaged 8 dancers (28.75 ± 4.65), males n=6, females n=2. The youngest dancer was of 21 years old and the oldest of 34. The level of the professionalism of those who returned the questionnaires was very high (almost all of them were leading artists, soloists or international laureates). In the light of this fact and qualitative data was collected at the theatre, we have a supposition that the dancers felt unsafe to join the research as a threat to loose the occupation place. Therefore, only the dancers in strong position and status at the theatre answered the questionnaire.

Professional Dancers (Russia)

Russian participants were presented by 21 professional dancers who completed the questionnaire. They were from a prestigious Ballet Theatre from St Petersburg. Russian dancing traditions of the troupe are acknowledged abroad as well as in Russia; a long list of contracts agreed years ahead confirms this fact. The dancers performing at the stage of the theatre are alumnus of the Academy of Russian ballet by A.Vaganova. Their age range varied from 19 to 49 years old (28.14 ± 9.52). The skill level of the dancers was represented by different professional roles (from corps de ballet to soloists and leading artist), where the highest level was weaker represented than in Belarusian sample collected at the theatre.

5.3 Design and Procedure

The data was collected through the distribution of a questionnaire package. A standardized questionnaire has been previously adapted to dance in recent and ongoing research by Qusted and Duda (in press).

Once permission has been obtained from the choreography collage and theatres' principles, the time and location have been scheduled to carry out the study that was most convenient to the dancers, instructors, choreographers and administrators (see Appendix 5, p.121). The

dancers were approached and invited to participate in the study. Each potential participant was given an information letter regarding the nature of the study and a consent form to be signed prior to the commencement of the study (see Appendices 6 and 7, pp. 122-123). The dancers engaged into the study were asked to provide relevant biographical information concerning age, gender, height, weight, age of menarche (females only), nationality, years of dance experience, hours of training, injury status, the title or professional level (soloist, leading dancer or corps de ballet) in the questionnaire variant for employed professionals, followed by actual scales also adapted to fit in context and meaning independently students and professionals.

The design of study was shaped so that questionnaires to be completed under a supervision of a trained research instructor to give the students opportunity to question unclear moments the dancers may have regarding the questionnaire instructions or the meaning of particular items. In the information letter, it was made clear to the dancers that they are able to refuse participation at any point of the study, decline to answer any questions while completing the multi-section questionnaire, or withdraw from the study at any time with no penalty or potential effect on their future involvement in dance. Therefore, respondents were informed that the questionnaire explored motivation and measured dance environment, motivational processes and well-being in dancers. It was also explained that there were no right or wrong answers, and that the survey would take about 30 minutes to complete. The participants received a short explanation in Russian about the way they were supposed to complete (mark) the questions. For practical matters, each questionnaire and the consent were personally coded by the participants, and the latter were assured that no-one outside the research group would have access to the questionnaires and that the principals (including teachers, choreographers or anyone else) would never have the opportunity to take a look at any of the completed questionnaires, in order to preserve confidentiality. The study included the measurement completed one time by each participant. Due to some technical inconveniences or misunderstanding, certain respondents skipped or miss-answered one of the questions in the study, in treatment of such cases will be further explained in the data analysis section.

Since the study involved three groups of participants (two groups of professionals and one of students) the procedures of data collection in each one even though being close to the basic confirmed design, had specific features and will be discussed separately. The procedure description will be also enriched with some extra qualitative data collected through observation and interviews at that stage.

Dance Students (Belarus)

Previously to the data collection the permission for the study was arranged with the principle of the Choreography Collage in Belarus who granted the informational consent signed, the conditions were also discussed and the students were mentally prepared to be individually offered to become a participant of the study.

The questionnaires were handed out during classes (quiet classroom conditions). According to Belarusian law, investigators do not need the consent from the students' parents, as long as the college provides the permission for study. Students were informed that they would be asked to complete questionnaires as a part of a survey on young dance people and that they could withdraw from the study at any phase if wanted. Those who took part in the research signed the concern form as well. All the students who were asked for participation completed the questionnaire and signed the concern. The instructor (Sviatlana Kamarova) was available for answering the questions about the content of the items during students' completion of the forms.

Randomly chosen groups were approached. The students were calm and did not express any unpleasant or uncomfortable emotion during the completing the questionnaire. A few students were not motivated in joining the study and declined participation. Some students showed their interest in the results of the study by asking when it will be available. The data collection continued about two weeks so that students were approaching with questions about findings. It is important to notice that the choreography college is an elite establishment of such kind in the country and is equally valued as Vaganova Academy in St Petersburg. Therefore, the students are often involved in research and a difficult target sample to get. Such experience might make them more tolerant and relaxed when data is collected.

The young dancers study basic sciences at the college and dance related subjects, but the largest part of a day is dedicated to dance training classes, which continues on till late afternoon six days a week.

Dance Professionals (Belarus)

Similarly to the procedures of data collection conducted in dance student group, the permission from the director of the theatre was received in advance and the announcement

about the project close in content to the information letter with some supplement of mentioning that similar research is running in elite level dancers in other countries was posted weeks before the actual data collection. It was done to create an essential motivation level for participation in the study.

The questionnaires were forwarded before the rehearsal in group, when the practical matters of the study were explained shortly and the dancers were asked to participate, as no research in Russian speaking countries had been done in this field and their part could be highly valuable. The confidentiality matters were explained and underlined. The dancers asked questions enthusiastically and specified opportunity to contact me about the details of the procedure later while completing forms. The folders with the consent, information letter and the questionnaire were granted to the dancers accompanied guidelines how to answer the items, so that they could complete the forms in their free time since it was not possible to substitute the rehearsals or to insist on their staying after work. Every day during two weeks I was present at the theatre to take the completed questionnaires from the dancers, to observe the dancers and the environment.

However, the dropout rate was highly associated with the insecurity the professional expressed. The observation and data collected during sessions with ballet dancers in Belarus revealed curious facts that we believe are important for further analysis. After showing interest and will to participate in the research at the first session where I described the study, its purpose and the procedure, only 8 from 75 dancers returned the questionnaires.

Surprisingly, the enthusiasm and questions about the form filling process and sincere remarks from the side of dancers created a positive atmosphere for the data collection.

However, the low returning rate and a change of dancers' behaviour (they were unlike the first meeting reserved, avoided the eye contact, the atmosphere was tensed) triggered us to interview several dancers to learn about their experience being a dancer in the theatre and about the reasons why they decided to cease the study. All the dancers who was either contacted in groups (frontal interview) or individually revealed their fear to give any true responses about the management of the theatre and they "cannot write a lie", even though confidentiality of their forms was accented at our first meeting, and that no other person will find out about individual results. In addition, famous troupe and prestigious status in the theatre that has no analogue in the country created a pressure on the dancers and intensified a perception of a danger to be fired. The stories about how easily one can be dismissed from the job and phrases "No one cares about people here", "don't take it personally, just somehow everyone gets to

know everything” created a holistic picture of an autocratic style occupying the theatre that proposes a deeper investigation of the social situation in the theatre.

Interestingly, the eight dancers who returned the forms were all the leading masters, internationally honoured laureates and soloists which are the highest level of mastery and appreciation among the dancers. Therefore, we have evidence to suppose that these dancers did not experience the same degree of pressure from the authorities and principle as the lower category artists and do not have a fear to be dismissed from the leading position at the theatre. Specifically, according to the returned questionnaires, they reported the workplace environment to be quite low in the autonomy support which corresponds well with the results of individual interviews cited before.

Dance Professionals (Russia)

The contact with the Russian theatre was gained by Professor Taru Lintunen on the grounds of their concert tour in Jyväskylä, Finland. The principal of the dancing group granted the permission for joining the study and was informed with the procedures of answering questions, and the conditions of participation. She handed out the questionnaires and other parts of the folder to the dancers during their trip from St Petersburg to Jyväskylä. The completed questionnaires were collected by Sviatlana Kamarova at their destination.

Unfortunately, the data collection deviated from the planned procedure because of time limitations. Consequently, we were not available for the dancers to answer the questions when they filled in the forms. However, in terms of the aims of the study and constraints to get opportunity to involve Russian elite level ballet dancers, we asked the organizer of the concert tour to be of our assistance to explain the basics of the project goals and filling in procedure while forwarding the set of forms and the information letter.

5.4 Measures

The questionnaire was comprised from 10 measures to assess the SDT framework model (Figure 2). Therefore, the study can be presented as a diagram at Figure 3. A detailed description of the measures is enclosed below.

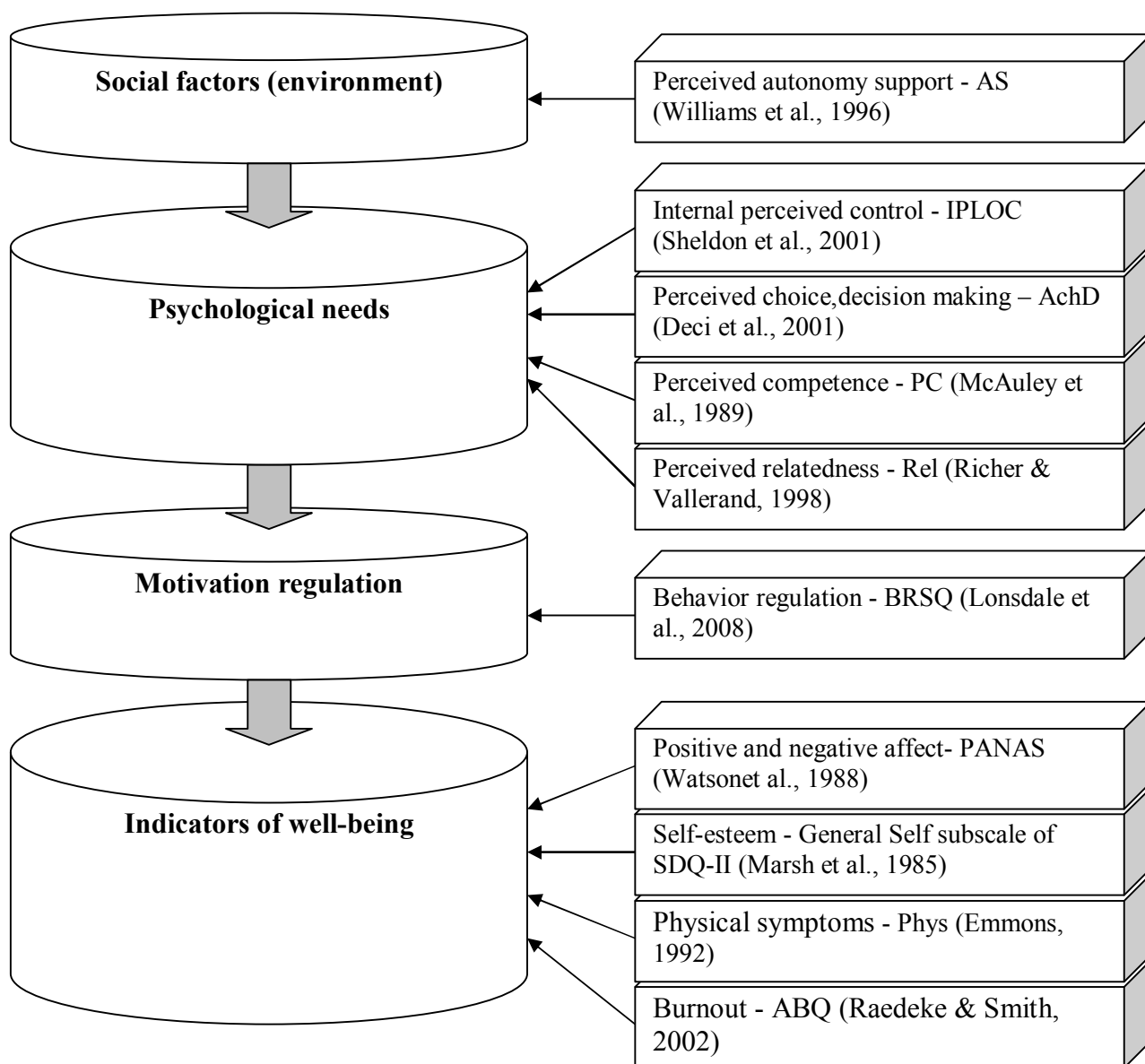


Figure 3. Study scheme

Social factors:

- 1) A 7 item *Health Care Climate Questionnaire* (Williams, Grow et al., 1996) was adapted by Reinboth et al.(2004) to measure autonomy support provided by coaches) (see Appendix 4, questions 1-7, p.107). The original tool consisted of 15 items to assess participants' perceptions of the degree of autonomy support (vs. controllingness) of the environment. The final sub-scale of autonomy support adapted to dancing setting includes items such as "I feel that my teachers provide me with choices and options". The answers were rated on a 7-point Likert-scale ranging from strongly disagree (1) to strongly agree (7).

Psychological Needs:

- 2) The need for autonomy was measured using the *Internal Locus of Control* aspect of autonomy in 3 items subscale created by Sheldon, Elliot, Kim & Kasser (2001). The respondents were asked to evaluate the degree to which they feel that the environment (a theatre or a collage) provided opportunity for need satisfaction reflected in such items as “In this dance school I feel ... That my choices are based on my true interests and values”. A response Likert-scale offers a range from 1 (not at all) to 5 (very much) corresponds to actual need satisfaction (Appendix 4, questions 1-3, pp.114-115).

- 3) The subscale measuring self-determination (*Perceived Choice/ Decision Making*) was extracted from the Intrinsic Need Satisfaction Scale (Deci et al., 2001) and includes 6 items “In this dance school...I feel I can give a lot of inputs to deciding what skills/movements/expressions I want to practice” to which participants responded on 7-point, Likert-type scales (1-not at all true, 7-very true). This subscale aims to tap the degree to which the dancer feels he or she has choice or decision making in terms of his or her dance engagement (Appendix 4, questions 1-6, p. 115).

- 4) The 5 item *Perceived Competence subscale* used in the present study was developed by McAuley, Duncan and Tammen (1989) as a part of the 16 items Intrinsic Motivation Inventory (IMI) and has been shown to have strong psychometric properties (McAuley, Duncan & Tammen,1989). IMI measures both specific components of intrinsic motivation, as well as reflecting the overall levels of intrinsic motivation one experiences as a function of engaging in the task. Each of the 5 items scored on a Likert scale from strongly disagree (1) to strongly agree (7).The adaptation process to the dance setting was described earlier. Dancers were asked to indicate the extent to which the items corresponded to their evaluation of the competence they express in dancing (e.g. “I think I am pretty good at dancing”) (Appendix 4, p. 114).

- 5) *The Acceptance subscale* as a part of the Need for Relatedness Scale was developed by Richer and Vallerand (1998). Participants must indicate the extent to which each of 5 items corresponds to their current interpersonal relationships with their fellow dance students or colleagues at the theatre. The stem “In this dance school I feel...”is followed by the items (e.g., “supported”, “understood”). The dancers indicated their level of agreement on a 7-point scale which ranged from 1 (do not agree at all) to 7 (very strongly agree) (Appendix 4, questions 1-5, pp. 115-116).

Motivation Regulation:

- 6) *The Behaviour Regulation in Sport Questionnaire* (BRSQ; Lonsdale, Hodge & Rose, 2008) is a new developed measure of competitive sport participants' intrinsic, extrinsic motivation, and amotivation (SDT; Deci & Ryan, 1985, 2000). The tool associates with the self-determination continuum and therefore incorporates the degree of a motivation regulation (autonomous vs. controlled) measured with corresponding subscales. Dancers were asked to indicate the extent to which 24 items of the measure corresponded to his or her reasons for participating in dancing. (e.g. "I participate in dance... Because it's a part of whom I am"). Respondents required responding on a 7-point Likert-type scale ranging from 1 (not at all true) to 7 (very true) (Appendix 4, questions 1-24, pp. 112-113).

Indicators of Well-Being:

- 7) The 10 item *General Self-subscale* of the multidimensional SDQ-II (Marsh, Parker & Barnes, 1985) is a scale based upon the Rosenberg (1965) self-esteem scale and the modification by Backman (1970). Example items are: "I can't do anything right", "Overall, I have a lot to be proud of", and "Overall, most things I do turn out well". The statements were to be evaluated according to 6-point Likert-scale, where 1 is labelled as false, and as acceding the closer to true the item should be estimated ending in 6. There are three variants of SDQ on the base of age variations (SDQ-I for preadolescent, SDQ-II for adolescents, and SDQ-III for late adolescents) but the subscale we use applicable for the research purposes regardless the age as it assess only General Self that remains consistent for all participant group we engaged into the study (Appendix 4, questions 1-10, pp. 117-118).
- 8) To assess burnout in dancers the adapted *Athlete Burnout Questionnaire* (Raedeke & Smith, 2002) was applied in the study (Appendix 4, questions 1-15, pp. 116-117). This multidimensional inventory contains 15 items that evaluate three subscales of sport burnout. Subscales include a reduced sense of accomplishment (e.g., "I am not achieving much in dance"), emotional and physical exhaustion (e.g., "I am exhausted by the mental and physical demands of dance"), and dance devaluation (e.g., "The effort I spend in dance would be better spent doing other things"). Participants respond to the degree each item applies to him or her using an ordinal scale ranging from 1 to

5, with 1 denoting “almost never” and 5 denoting “almost always”. The first and fourteenth items are reversed scored. Although a fairly new means of assessing setting-specific burnout in dancers, this inventory went through several stages of development to establish its psychometric properties before its current state from being first devoted to competitive sport setting (created and administered to swimmers) to being widened in application and finally being adapted for dance settings.

- 9) Emmons (1992) created a *Self-reported Physical Symptoms Checklist*. Respondents were asked to check off which sensations they were currently experiencing such as “headaches”, “stiff/sore muscles” and to mark on a range of a 5-point scale (from 1=*never* to 5=*frequently*) the frequency of each of six symptoms. The last item was open for a participant to fill in a different symptom if it had not been listed in earlier and assess it in the same way (Appendix 4, questions 1-7, p. 118).

- 10) *The Brief Measure of Positive and Negative Affect* (PANAS; Watson, Clark, & Tellegen, 1988) was used to measure the two primary dimensions of mood- positive and negative. Respondents were asked to rate on a 5-point Likert-type scale the extent to which they had experienced each mood state recently. The points of the scale were labelled from ‘not at all, a little, moderately, quite a bit, and very much’, respectively in ascending order. The total 20 PANAS subjects of both scales were randomly distributed throughout the inventory. The measure consists of two scales of 10-item each and was proved to be consistent, valid, and reliable. Positive Affect scale and Negative Affect scale revealed to be independent in correlation with external variables. For example, the PA scale (but not the NA scale) is related to social activity and shows significant diurnal variation, whereas the NA scale (but not the PA scale) is significantly related to perceived stress and shows no circadian pattern (Appendix 4, questions 1-20, p. 119).

5.5 Literature Search

The following databases were used: SportDiscuss, Ebscohost, Nelli, JYKDOK, Spolit, PsychArticles, Google scholar, PubMed, ISI Web of Knowledge, AMAZON search. In addition, the literature in Belarussian National Library was scanned for similar studies. In addition, I completed search in Russian data base in dissertations, master theses and research studies.

Keywords used in the searchers are: Self-determination theory, Dance, Adaptation, Motivation in dancers, Belarus, Russia, ballet, autonomy support, The Brief Measure of Positive and Negative Affect, PANAS, Self-reported Physical Symptoms Checklist, Self-Description Questionnaire, SDQ-II, Athlete Burnout Questionnaire, ABQ, Behaviour Regulation in Sport Questionnaire, BRSQ, Intrinsic Need Satisfaction Scale, Need for Relatedness Scale, Intrinsic Motivation Inventory, IMI, Health Care Climate Questionnaire, HCCQ; in Russian and Belarussian databases: ‘самодетерминация’, ‘самодетерминация и спорт’, ‘балет’, ‘танец’, ‘основные потребности’, ‘опросник регуляции поведения в спорте’, ‘опросник климата заботы о здоровье’, ‘опросник внутренней мотивации’, ‘потребность в автономности’.

Results in Russian revealed following results: The search gave only one article on related to self-determination theory studies: Chircov, V. I. Samodeterminatsia i vnutrennaia motivatsia povedenia cheloveka (Self-determination and internal motivation of human behaviour). Since the studies under the keywords of dance and ballet presented certain circle of works mainly in application to special dance abilities, acme and performance, for instance, the dissertation of Sobaleva (2005) on ballet dancers’ efficiency of creativity. Such a picture can be explained by the orientation on the results and performance in former USSR countries. Therefore, the scarcity in health and well-being context are left from the research in those area, and traditions in culture of autocratic tradition in management and teaching still remains to be strong in Russian and Belarus, which prevents the research to move in self-determination direction.

5.6 Statistical Analysis

SPSS 15.0 was used for the statistical analysis. The data were screened, and descriptive statistics was calculated. To study the construct validity of the indicators of motivation regulation mechanisms in Russian questionnaires we used Principal Axis Factoring analysis. Internal consistencies were examined using the coefficient α of Cronbach. One-way ANOVA and post hoc multiple comparisons were applied to compare means between three independent groups of participant (Belarusian dance students, Belarusian professional dancers and Russian professional dancers). Furthermore, two-way ANOVA was used to study influence of professional levels (status) and genders on the variables. Finally, correlations were calculated by using Pearson and Student product moment correlations were used for examining relationships between the variables to test the concepts of the Self-Determination Theory according to Figure 3.

The missing data appeared in the forms was treated individually. We replaced only random missing data of inventories by calculating the average of the responses from the respondent within the measure to retain the individual meanings. Most missing data occurred among the students, who was contacted through the educational establishment during the lecture, we believe the missingness can be linked to the dropping motivation during the feeling in the forms, while the professionals were feeling in the forms in their free time and dancers were motivated to join the study otherwise they did not return the forms. The collected data did not revealed association of missingness with the social factors such as a fear to be punished for creation of a disapproving image of the establishment they represent.

6 RESULTS

6.1 Validity and Reliability of the Measures:

1) *The Health Care Climate Questionnaire (Williams, Grow et al., 1996)*

1.97% of the data was missing. This allows replacing the missing items with individual means as it was done earlier, omitting one participant who completed less than a half of the scale.

The scale and its items translated into Russian have high scores in reliability ($\alpha=0.84$) (Table 1).

Factor analysis revealed a one-factor solution measuring perceived autonomy support (eigenvalue 3.55, and 50.55% of explained variance). The analysis showed that the behaviour of the measure remained adequate to the original English scale.

Table 1. The Health Care Climate Questionnaire (HCCQ): Reliability (alpha of Cronbach).

Item	α if item deleted	Total α
I feel that my teachers provide me with choices and options	.81	
I am able to be open with my teachers while engaged in dance	.82	
My teachers make sure I really understand the goals of my dance involvement and what I need to do	.81	
My teachers encourage me to ask questions	.84	
My teachers answer my questions fully and carefully	.79	
My teachers listen to how I would like to do things	.79	
My teachers try to understand how I see things before suggesting a new way to do things	.79	
		.84

2) *Internal Locus of Control aspect of autonomy (Sheldon et al., 2001)*

The low rate of data missingness (0.8%) permitted us to substitute the empty items with individual means. The validity of the scale was examined with Principal Axis Factoring Method, Oblimin Rotation ($KMO=0.66$, $h^2 =64.23$). One factor covers 62.98% of variance (1.89). Translated scale behaves similarly to the original regarding the structure. Cronbach's $\alpha=0.70$ that states that the measure is reliable. The reliability and the validity values are presented below.

Table 2. Internal Locus of Control aspect of autonomy: Factor loadings and communalities.

Item	Autonomy locus control	h^2
That my choices are based on my true interests and values	.78	.59
Free to do things my own way	.55	.30
That my choices express my “true self”/ who I really am	.69	.48

Table 3. Internal Locus of Control Aspect of Autonomy: Reliability of measure: α of Cronbach.

Item	α if item deleted	Total α
That my choices are based on my true interests and values	.55	.70
Free to do things my own way	.69	
That my choices express my “true self”/ who I really am	.59	

3) Perceived Choice/Decision subscale (Deci et al, 2001)

The missing data coefficient was 0.7%. Two people did not complete the scale. The procedure of replacement the missing items with the means were repeated as described before. The unidimensional nature of the scale was proved with Principal Axis Factoring (KMO=0.81, h^2 =258.70) (Table 4), where one factor explained 55.77% with an eigenvalue of 3.35. The tool was successfully adapted with high validity and consistency adequately to the English version (alpha of Cronbach coefficient was equal to 0.84).

Table 4. Perceived Choice/Decision: Factor loadings and communalities.

Item	Perceived choice/control	h^2
I feel free to express my ideas and opinions	.64	.40
I feel free to do things my own way	.69	.47
I feel I can give a lot of inputs to deciding what skills/movements/expressions I want to practice	.78	.58
I have the opportunity to take part in deciding what choreography should be used	.65	.42
I have a say in what happens in dance classes and rehearsals and I feel free to give my opinion	.66	.44
I feel I have a lot of inputs in deciding how rehearsals and class are to be carried out	.72	.51

Table 5. Perceived choice/decision: Reliability of measure: α of Cronbach.

Item	α if item deleted	Total α
I feel free to express my ideas and opinions	.83	
I feel free to do things my own way	.82	
I feel I can give a lot of inputs to deciding what skills/movements/expressions I want to practice	.80	
I have the opportunity to take part in deciding what choreography should be used	.83	
I have a say in what happens in dance classes and rehearsals and I feel free to give my opinion	.82	
I feel I have a lot of inputs in deciding how rehearsals and class are to be carried out	.81	
		.84

4) Perceived Competence subscale (McAuley et al., 1989)

The scale was filled in by all the participants successfully; therefore missing data rate was zero percent. The scale proved to be unidimensional: The method of Principal Axis Factoring showed that one factor can explain 49.50 percent of the variance (eigenvalue coefficient of 2.47) ($KMO=0.75$, $h^2=129.33$). The scale revealed significant reliability as well ($\alpha=0.71$).

Table 6. Perceived competence: Factor loadings and communalities.

Item	Perceived competence	h^2
I think I am pretty good at dance	.61	.37
I am satisfied with my dancing	.63	.39
After practicing a particular routine/movement for a while, I feel pretty competent	.65	.43
I am pretty skilled at dance	.85	.72
I can't dance very well	-.27	.07

Table 7. Perceived competence: Reliability of measure: α of Cronbach.

Item	α if item deleted	Total α
I think I am pretty good at dance	.65	
I am satisfied with my dancing	.64	
After practicing a particular routine/movement for a while, I feel pretty competent	.65	
I am pretty skilled at dance	.58	
I can't dance very well	.77	
		.71

5) *Need for Relatedness scale (Richer & Vallerand, 1998)*

All the items were answered by each participant from the study; therefore 100% of the data was available for the analysis. High validity was confirmed with Principle Axis Factoring with Oblimin Rotation (KMO=0.87, $h^2=355.00$): 66.26% of explained variance by one extracted factor, eigenvalue of 3.31. Item loadings are presented at Table 8. The reliability of the scale remained the same in Russian version as in French original one ($\alpha=0.90$) (Richer & Vallerand, 1998), which affirms that the scale was working well after the translation.

Table 8. Need for Relatedness Scale: Factor loadings and communalities.

Item	Need for relatedness	h^2
Supported	.84	.70
Listened to	.81	.66
Understood	.83	.69
Valued	.82	.68
Safe	.76	.58

Table 9. Need for Relatedness Scale: Reliability of measure: α of Cronbach.

Item	α if item deleted	Total α
Supported	.88	
Listened to	.89	
Understood	.88	
Valued	.88	
Safe	.90	
		.90

6) *The Behaviour Regulation in Sport Questionnaire (BRSQ; Lonsdale et al., 2008)*

The low rate of missing data (0.3%) allowed repeating the same procedure of substitution of missing items described earlier with mean values individually. One participant was excluded from the sample since the percentage of answered items was less than 50%. The data was distributed normally according to the evidence of skewness and kurtosis (<2), except for the “I dance...Because I people push me to dance” and “I dance...Because I like it”. All the scores for KMO and Bartlett's Test showed that sampling adequacy is significant (KMO=0.76; $h^2=1195$, $p<0.000$, in respect), which reports about factorability of the inventory.

Principal Axis Factoring with Oblimin rotation was used for examining structure of the measure (Table 10). In line with theoretical framework (Londsdale, Hodge and Rose, 2008), five factors were found: autonomous (IM-General and integrated regulation), introjected, identified, external regulation and amotivation with alphas 0.85, 0.79, 0.78, 0.52, and 0.70, in respect) which explained the total variance of 60.8% (Table 10). Similarly to the behaviour of the original tool, the items measuring Internal General Regulation and Integrated Regulation loaded to one factor, which can be explained by closeness to the extreme end of self-determination continuum (these are the most autonomous types of regulation). Such loading can be explained also by the difficulty of the answering method (questionnaire format) when the participants did not have time to think of their sense of self and core values related to integrated regulation (Londsdale, Hodge, & Rose, 2008). Two items were eliminated since 'I dance...But I wonder what the point is' loaded with wrong factor and 'I dance...But the reasons why are not clear to me anymore' had weak loading and loaded on three factors. The failure to measure amotivation of these items may correspond to the complicated form of expressions and inability to think about the meaning beneath the statement leading to misunderstanding. Such explanation can be confirmed by the observation of the participants who asked about the meaning of the items during the data collection.

Table 10. The Behaviour Regulation in Sport Questionnaire (BRSQ): Factor loadings and communalities.

Item	Factor					h ²
	1	2	3	4	5	
Because I enjoy it (1)	.76	.01	-.23	-.07	-.38	.67
Because I find it pleasurable (19)	.75	.14	-.38	-.29	-.03	.63
Because it allows me to live in a way that is true to my values	.64	.134	-.35	-.15	-.05	.49
Because it's a part of whom I am (2)	.74	.24	-.39	.01	-.25	.68
Because dancing is an expression of who I am (8)	.69	.21	-.43	-.18	.04	.58
Because I like it (11)	.67	.11	-.26	-.31	-.23	.54
Because it's an opportunity to just be who I am (3)	.61	.25	-.50	-.05	.02	.51
Because it's fun (16)	.42	.29	-.38	-.19	.22	.49
Because I would feel guilty if I quit (18)	.19	.81	-.18	.03	.19	.59
Because I would feel like a failure if I quit (6)	.23	.78	-.25	.12	.25	.63
Because I would feel ashamed if I quit (4)	.05	.69	-.24	.02	.20	.52
Because I feel obligated to continue (12)	.27	.56	-.44	-.07	.39	.47
Because I value the benefits of dance (20)	.40	.17	-.74	-.21	-.10	.54
Because it teaches me self-discipline (17)	.33	.18	-.67	.04	.12	.57
Because the benefits of dance are important to me (9)	.36	.28	-.66	-.16	.03	.47
Because it is a good way to learn things which could be useful to me in my life(22)	.31	.22	-.72	-.11	.14	.46
But I question why I am putting myself through this (21)	-.31	.01	.15	.85	.12	.57
But I question why I continue (13)	-.07	.35	.02	.58	.33	.56
Because I feel pressure from other people to dance (14)	-.34	.07	.14	.18	.58	.46
Because if I don't other people will not be pleased with me (10)	.11	.52	-.34	-.02	.57	.53
Because people push me to dance (15)	-.18	.07	.05	.25	.49	.35
In order to satisfy people who want me to dance (23)	.04	.29	-.15	-.21	.42	.37
Eigenvalue	5.73	3.30	1.63	1.45	1.27	
Explained variance	26.03	14.98	7.41	6.59	5.77	

According to hypothesis concerning the underlying self-determination continuum we expected higher correlations between factors hypothesized to be closer to each other on the continuum to be stronger than those between factors being further apart. However, that was not the case according to the correlations between the factors (Table 11). The reliability analysis showed high homogeneity of the inventory (see Table 12).

Table 11. Factor Correlations in BRSQ.

Factor	1	2	3	4	5
1	1.00				
2	.22	1.00			
3	-.48	-.31	1.00		
4	-.21	.03	.15	1.00	
5	-.14	.31	-.12	.08	1.00

1-Intrinsic Motivation General (IM-General) and Integrated Regulation; 2-Introjected Regulation
3-Identified Regulation; 4-Amotivation; 5-External Regulation

Table 12 The Behaviour Regulation in Sport Questionnaire (BRSQ): Alpha of Cronbach.

Factor	Item	α if item deleted	Total α
Autonomous Regulation (IM- General and Integrated Regulation)	Because I enjoy it (1)	.83	.85
	Because I find it pleasurable (19)	.82	
	Because it allows me to live in a way that is true to my values (24)	.83	
	Because it's a part of whom I am (2)	.83	
	Because dancing is an expression of who I am (8)	.82	
	Because I like it (11)	.83	
	Because it's an opportunity to just be who I am (3)	.83	
	Because it's fun (16)	.86	
Identified Regulation	Because it is a good way to learn things which could be useful to me in my life(22)	.73	.78
	Because I value the benefits of dance (20)	.71	
	Because it teaches me self-discipline (17)	.75	
	Because the benefits of dance are important to me (9)	.72	
Introjected Regulation	Because I would feel like a failure if I quit (6)	.71	.79
	Because I would feel guilty if I quit (18)	.71	
	Because I would feel ashamed if I quit (4)	.75	
	Because I feel obligated to continue (12)	.80	
External Regulation	Because I feel pressure from other people to dance (14)	.43	.52
	Because if I don't other people will not be pleased with me (10)	.36	
	Because people push me to dance (15)	.49	
	In order to satisfy people who want me to dance (23)	.48	

The factor of Amotivation consists of the items 'But I question why I continue' and 'But I question why I am putting myself through this'. The 2-tailed bivariate correlation between them was highly significant ($r=0.54$, $p<0.000$) and the items were highly related.

Londsdale, Hodge, and Rose (2008) discussed the process of the development of the original inventory in their article through presenting results of a range of studies where the final version was not presented holistically and clearly enough with all the details received after elaborated studies, and they rather suggested the followers to be scrupulous in application of the tool (to pick up the items and/or adapt to the sample).

7) *The General Self-subscale of SDQ-II (Marsh et al., 1985)*

One participant was excluded from the sample for analysis since leaving the scale completely empty. From the all other data missingness comprised only 0.6% (7 items were missing). It permits to follow above mentioned procedure for missing item replacement.

The α for the General Self-subscale was 0.75 (however the average coverage of the items in the database cannot be negative since the answer variants were on a range from 1 to 5, where negative respond is not possible). Utilizing Principal Axis Factoring with Oblimin rotation revealed $KMO=0.753$ and Bartlett's Test of Sphericity was significant (262.28). One factor explained 33.75% of variance with eigenvalue of 2.86.

Table 13. The General Self-subscale (SDQ-II): Reliability (alpha of Cronbach).

Item	α if item deleted	Total α
Overall, I have a lot to be proud of.	.76	
Overall, I am no good.	.73	
Most things I do, I do well.	.71	
Nothing I do ever seem to turn out right.	.74	
Overall, most things I do turn out well.	.71	
I don't have much to be proud of.	.73	
I can do things as well as most people.	.72	
I feel that my life is not very useful.	.75	
If I really try I can do almost anything I want to do.	.72	
Overall, I am a failure.	.72	
		.75

8) *Athlete Burnout Questionnaire (Raedeke & Smith, 2002)*

All answers of one of the respondents were the same; consequently, the person was excluded. All other participants completed the inventory with only 9 item missing (0.5% from the whole data), which were substituted with the means of the scales for each person in respect

(Hawthorne & Elliott, 2005). Skewness and kurtosis values did not exceed an absolute value of 1, which demonstrate the normality of data distribution (Miles & Shevlin, 2001).

Principal Axis Factoring with Oblimin rotation was applied to examine the structure of the measure (Table 14). KMO and chi-square for Bartlett's Test of Sphericity showed the multidimensional structure of the phenomena of burnout within the inventory (KMO=0.76; $h^2=506.84$, $p<0.00$). The structure with explained 38.90 % of variance detected three factors: Physic and emotional exhaustion, Dance devaluation, and Reduced sense of accomplishment. The items “I am not into dance like I used to be”, “I have negative feelings towards dance”, “I am not achieving much in dance”, and “I am not performing up to my ability in dance” were loading to both Dance devaluation and Reduced sense of accomplishment with opposite directions, therefore they were excluded. The statement “It seems that no matter what I do, I don’t perform as well as I should” was eliminated, since it loaded to a wrong factor.

Table 14. Athlete Burnout Questionnaire (ABQ): Factor loadings and communalities.

Item	Factor			h^2
	Physic and emotional exhaustion	Dance devaluation	Reduced sense of accomplishment	
I feel overly tired from my dance participation (4).	.81	.28	.02	.68
I feel “wiped out” (exhausted) from dance (8).	.80	.07	-.22	.69
I feel physically worn out from dance (10).	.80	.29	-.32	.73
I am exhausted by the mental and physical demands of dance (12).	.72	.29	-.29	.53
I feel so tired from my dance training that I have trouble finding energy to do other things (2).	.67	-.05	.13	.41
I feel less concerned about being successful in dance than I used to (11).	.20	.84	-.24	.64
I don’t care as much about my dance performance as I used to (6).	.02	.74	-.04	.47
The effort I spend in dance would be better spent doing other things (3).	.20	.74	.04	.37
I’m accomplishing many worthwhile things in dance (1).	.04	-.09	.79	.21
I feel successful at dance (14).	-.22	-.03	.62	.40
Eigenvalue	3.56	1.80	1.24	
Explained variance	32.86	16.32	11.26	

Table 15. Athlete Burnout Questionnaire (ABQ): Reliability (alpha of Cronbach).

	Item	α if item deleted	Total α
Physic and emotional exhaustion	I feel so tired from my dance training that I have trouble finding energy to do other things (2).	.74	.82
	I feel overly tired from my dance participation (4).	.72	
	I feel "wiped out" (exhausted) from dance (8).	.73	
	I feel physically worn out from dance (10).	.72	
	I am exhausted by the mental and physical demands of dance (12).	.72	
Dance devaluation	The effort I spend in dance would be better spent doing other things (3).	.67	.71
	I don't care as much about my dance performance as I used to (6).	.63	
	I feel less concerned about being successful in dance than I used to (11).	.53	

The relations between the items 'I'm accomplishing many worthwhile things in dance' and 'I feel successful at dance' completing the third factor Reduced sense of accomplishment revealed significant level of correlation ($r=0.21$, $p=0.03$), but moderate related.

Table 16. Factor correlation.

Factor	1	2	3
1	1.000		
2	.192	1.000	
3	-.153	-.151	1.000

1-Physical and Emotional Exhaustion; 2- Dance Devaluation; 3- Reduced Sense of Accomplishment

9) *Self-reported Physical Symptoms Checklist (Emmons, 1992)*

Since one participant ignored the scale, the items were not reconstructed with means only in that single case. The low percentage of the missing data (0.9) was detected in respect to all other items were present, and the procedure of replacement was conducted. The scale proved to be consistent with Cronbach coefficient alpha equal to 0.76. The indexes of item reliability were high as well, ranging between 0.69 and 0.79 (Table 18). The scale was also analysed for validity with Principal Axis Factoring (the single factor eigenvalue of 2.8, explained

variability of 47%). Despite the item ‘Running and congested nose’, all the statements loaded to one factor.

Table 17. Self-reported physical symptoms checklist: Factor loadings and communalities.

Item	Physical symptom	h^2
Headaches	.80	.64
Stomach-ache/pain	.58	.40
Chest/heart pain	.63	.46
Runny and congested nose	.49	.47
Faintness/dizziness	.68	.45
Stiff/sore muscles	.59	.36

Table 18. Self-reported physical symptoms checklist: Reliability (alpha of Cronbach).

Item	α if item deleted	Total α
Headaches	.69	
Stomach-ache/pain	.74	
Chest/heart pain	.73	
Runny and congested nose	.79	
Faintness/dizziness	.71	
Stiff/sore muscles	.74	
		.79

10) *The Brief Measure of Positive and Negative Affect (PANAS; Watson et al., 1988).*

After screening the data two participants were excluded since they did not answer the inventory. Listwise deletion was used in cases with greater than 50% of items missing on any scale, resulting in a total sample size of $n=114$ (two persons did not fill in the inventory). Only 0.57% (13 items altogether) of the data was missing, uncorrelated with any of the variables in the set. Therefore, Person mean substitution was used to impute missing data for all items individually for each case (Hawthorne & Elliott, 2005). Professional dancers missed only 4 of the answers, and all completed the inventory, while students were less persistent. The normality of all variables distributions were examined using skew and kurtosis values, which except the item “Ashamed” were less than 2 and were therefore considered acceptable (Miles & Shevlin, 2001). The results confirm the normality of distribution of data.

Measures of sampling adequacy: Correlation matrix is factorable if Bartlett's Test of Sphericity is more than 0.5 and or KMO measure of sampling adequacy is significant. Hence,

the values for PANAS report about its factorability (KMO=0.795; Chi-Square=839, $p<0.00$). The structure of the inventory was checked with Principal Axis Factoring. Since there was no correlation between the factors ($r=0.023$), we used the rotation method of Varimax with Kaiser Normalization. The items were loading respectively with two factors as estimated (negative and positive affect) and explained totally 38% of variance (Table 19).

Contrary to original English scales, the item “Alert” had higher loading on the negative affect factor; therefore it was excluded from the study. The word ‘Alert’ in Russian language has double meaning: besides ‘lively’ and ‘active’ which are not the main meanings of such an emotion, it is related more to ‘anxious’ which was perceived as negative, disfavoured affect by the dancers. In addition, ‘Proud’ revealed low loading on both factors, but still higher with positive one (0.31). Such loading can be influenced by cultural features in collectivist countries where feeling proud can also be perceived as a negative characteristic in addition to positive one. All the rest of the items revealed high loading to the correspond factors according to the theory (Watson, Clark, & Tellegen, 1988) and behaved in similar way as original measure did. Alpha scores indicated high internal consistency (reliability) of both scales (Table 20).

Table 19. The Brief Measure of Positive and Negative Affect (PANAS): Factor loadings and communalities.

Item	Factor		h ²
	Negative Affect	Positive Affect	
Inspired	-.01	.75	.57
Strong	-.07	.75	.51
Enthusiastic	-.03	.73	.51
Determined	.09	.69	.56
Active	-.11	.65	.48
Interested	-.09	.61	.47
Attentive	-.19	.48	.37
Excited	.27	.37	.29
Proud	.26	.32	.41
Nervous	.76	-.09	.66
Irritable	.65	-.04	.62
Upset	.65	-.18	.47
Jittery	.65	.07	.49
Hostile	.60	-.06	.53
Distressed	.57	-.09	.44
Guilty	.55	.08	.40
Scared	.55	.19	.40
Afraid	.47	-.06	.36
Ashamed	.42	-.02	.38
Eigenvalue	3.74	3.53	
Explained variance	19.69	18.38	

Table 20. The Brief Measure of Positive and Negative Affect (PANAS): Reliability: Alpha of Cronbach

	Item	α if item deleted	Total α if item deleted
Positive affect	Inspired	.78	0.84
	Strong	.78	
	Enthusiastic	.78	
	Determined	.77	
	Active	.78	
	Interested	.78	
	Attentive	.79	
	Excited	.77	
	Proud	.78	
Negative affect	Nervous	.77	0.82
	Irritable	.77	
	Upset	.78	
	Jittery	.77	
	Hostile	.78	
	Distressed	.78	
	Guilty	.77	
	Scared	.77	
	Afraid	.78	
Ashamed	.78		

6.2 Mean Differences among the Groups

Perceived Autonomy Support

Levene's test showed that the variance was equal ($p=.88$). The analysis of variance revealed statistically significant difference between the examined groups ($p=.01$) (Table 21). Post hoc multiple comparisons performed using Scheffe test showed that the Belarusian choreography students perceived their college environment as more autonomy supportive than the Russian ($p<.01$) or the Belarusian professional dancers ($p<.01$) perceived the theatre environments they work in. Perceived autonomy support was slightly above the median value (4) and indicated positive perception of autonomy support among the students. On the contrary, it was slightly below the median among the professional dancers. Their perception of autonomy support was slightly pessimistic.

Table 21. Perceived Autonomy Support in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	4.75	1.28	F=9.59	R1>R2
(R2) Belarusian professionals	8	3.14	1.37	df=2	(p=.005),
(R3) Russian professionals	21	3.69	1.48	p=.000	R1>R3
Total	115	4.44	1.42		(p=.006)

Internal Locus of Control (Autonomy)

Levene's test indicated equality in variance ($p=.77$). The analysis of variance revealed the statistical difference between the groups of ballet dancers in the level of internal locus of control ($p=.000$) (Table 22). Post hoc analysis using the Scheffe criterion for significance detected difference between the Belarusian college students who scored the highest at this aspect of autonomy compared to the Russian professional dancers ($p=.000$).

The internal locus of control for the students was above the median value (3) and indicated positive perception of possibilities of self expression. However, it was slightly below the median in the case of the Russian professional dancers. Their perception of internally controlled behaviour related to dance was slightly pessimistic.

Table 22. Internal Locus of Control in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	87	3.65	.82	F=15.11	R1>R3
(R2) Belarusian professionals	8	3.04	1.05	df=2	(p=.000)
(R3) Russian professionals	21	2.55	.88	p=.000	
Total	116	3.41	.94		

Perceived Choice and Decision (Autonomy)

Levene's test revealed the variance was equal ($p=.65$). The analysis of variance showed that the differences between the groups were not statistically significant ($p=.103$) (Table 23).

Table 23. Perceived Choice and Decision in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	3.57	1.37	F=2.32	-
(R2) Belarusian professionals	8	2.94	1.67	df=2	
(R3) Russian professionals	20	2.89	1.50	p=.103	
Total	114	3.40	1.43		

Perceived Competence

Levene's test approved homogeneity of the variance ($p=.661$). The analysis of variance showed no statistically significant differences between the groups of ballet dancers ($p=.206$) (see Table 24).

Table 24. Perceived Competence in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	87	4.34	1.05	F=1.60	-
(R2) Belarusian professionals	8	4.70	1.05	df=2	
(R3) Russian professionals	21	4.77	1.18	p=.206	
Total	116	4.44	1.08		

Relatedness

Leven's test showed that the variance was equal ($p=.72$). The analysis of variance did not reveal statistically significant differences between the groups in perceived satisfaction for psychological need of relatedness ($p=.16$) (see Table 25).

Table 25. Perceived Relatedness in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	87	3.46	1.08	F=1.84	-
(R2) Belarusian professionals	8	2.75	.99	df=2	
(R3) Russian professionals	21	3.20	1.08	p=.16	
Total	116	3.36	1.08		

Autonomous Motivation Regulation (BRSQ)

Leven's test showed that the variance was equal ($p=.29$). The analysis of variance revealed the statistical difference between the groups in the level of autonomous motivation they experience ($p=.003$) (Table 26). Post hoc analysis using the Scheffe criterion of significance showed a difference between the mean values of the groups: the Belarusian choreography college students displayed the highest level of autonomous motivation regulation, while the Russian professional dancers showed the lowest degree of self-determined behaviour ($p=.004$).

Autonomous motivation for the students was reported to be above the median value (5) and indicated the positive perception of performed autonomous behaviour regulation among them. On the contrary, it was slightly below the median among the Russian professional dancers.

They were more pessimistic and felt that their behaviour was driven by autonomous motives to lower extent.

Table 26. Autonomous Motivation in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	5.78	1.15	F=6.19	R1>R3
(R2) Belarusian professionals	8	5.25	.95	df=2	(p=.004)
(R3) Russian professionals	21	4.86	.99	p=.003	
Total	115	5.57	1.16		

Identified Motivation Regulation (BRSQ)

Leven's test showed that the variance was not high (p=.009). Analysis of variance manifested the difference in interjected motivational regulation between groups (p=.000) (Table 28).

Multiple comparisons of post hoc analysis completed with the Scheffe criterion of significance showed that the level of interjected motivation was statistically different between the Belarusian students and both groups of professionals (p=.000). The Belarusian students showed higher identified regulation compared to the professional theatre dancers.

Identified motivation regulation for the students was reported to be significantly above the median value (4) and indicated the positive perception of enacted identified behaviour regulation among them. On the contrary, it was below the median among the professional dancers. Both groups of professionals were more pessimistic and felt that their behaviour was driven by identified motives to lower extent

Table 28. Identified Motivation in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	6.27	.88	F=24.55	R1>R2
(R2) Belarusian professionals	8	4.63	1.32	df=2	(p=.000),
(R3) Russian professionals	21	4.82	1.33	p=.000	R1>R3
Total	115	5.89	1.19		(p=.000)

Introjected Motivation Regulation (BRSQ)

Leven's test indicated absence of differences in variance (p=.103). The analysis of variance revealed the statistical difference between the groups in the level of interjected motivation (F(2) = 4.22, p= .017) (Table 27). The Scheffe test of post hoc analysis displayed that the

Belarusian students revealed the highest level of introjected motivation in comparison with the Belarusian theatre dancers ($p=.06$), which, however, is on the border of statistical significance.

Introjected motivation was slightly above the median value (2.5) and indicated that the students perceived this regulation type as more relevant to their actual behaviour. On the contrary, it was slightly below the median among the Belarusian professional dancers. Their perception of introjected motivation was expressed weaker.

Table 27. Introjected Motivation in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	3.54	1.77	F=4.22	R1>R2 ($p=.06$)
(R2) Belarusian professionals	8	2.00	.85	df=2	
(R3) Russian professionals	21	2.73	1.80	p=.017	
Total	115	3.28	1.78		

External Motivation Regulation (BRSQ)

Levene statistic showed that the variances were not high ($p=.046$). The analysis of variance displayed that there was a difference between the examined groups ($p=.01$) (Table 29).

Multiple comparisons between the groups done with the Scheffe test showed that there was a statistically significant difference between students and employed professional ballet dancers in Belarus ($p=.04$), where the first revealed the highest rates in extrinsic motivation and the latter -the lowest, bottoming below the median of 2.

Table 29. Interjected Motivation in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	2.62	1.11	F=4.74	R1>R2 ($p=.04$)
(R2) Belarusian professionals	8	1.63	.44	df=2	
(R3) Russian professionals	21	2.10	.98	p=.01	
Total	115	2.46	1.09		

Amotivation (BRSQ)

Test of homogeneity of variances approved its consistency ($p=.95$). The subsequent statistical analysis of variance showed that there were no significant differences between the groups in amotivation level ($p>.05$) (see Table 30).

Table 30. Amotivation in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	2.77	1.88	F=2.53	-
(R2) Belarusian professionals	8	2.50	2.05	df=2	
(R3) Russian professionals	21	3.76	1.96	p=.084	
Total	115	2.93	1.93		

Self-esteem

Levene's test revealed the variance was homogeneous ($p=.65$). However, there were no statistically significant differences between the groups of ballet dancers ($p=.33$) in self-esteem (see Table 31).

Table 31. General Self-subscale of SDQ-II in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	4.57	.69	F=1.13	-
(R2) Belarusian professionals	8	4.91	.70	df=2	
(R3) Russian professionals	21	4.71	.74	p=.33	
Total	115	4.62	.70		

Physical and Emotional Exhaustion (Burnout)

Levene's test showed that the variance is equal ($p=.70$). The analysis of the variance revealed the studied dancers groups are not significantly different from each other ($p=.89$) (see Table 32).

Table 32. Physical and Emotional Exhaustion in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	87	2.53	.98	F=.119	-
(R2) Belarusian professionals	8	2.63	1.09	df=2	
(R3) Russian professionals	21	2.64	.88	p=.89	
Total	116	2.56	.96		

Dance Devaluation (Burnout)

Levene's test approved homogeneity of variance ($p=.247$). The analysis of variance detected statistically significant difference between the groups of ballet dancers ($p=.01$) (Table 33). The Scheffe criterion of post hoc analysis detected the difference between Russian professional dancers who scored the highest results in dance devaluation component of burnout syndrome compared to the Russian ($p=.029$) and the Belarusian professionals ($p=.049$). The lowest rate of dance devaluation was showed by the Belarusian professional

dancers. Their indices were slightly below the median value (2) and indicated that the Belarusian professionals were least exposed towards such type of burnout compared to both the students and the Russian colleagues, whose perception of dancing was slightly pessimistic.

Table 33. Dance Devaluation in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	87	2.13	1.05	F=4.60	R1<R3
(R2) Belarusian professionals	8	1.75	.75	df=2	(p=.029),
(R3) Russian professionals	21	2.79	.90	p=.01	R2<R3
Total	116	2.22	1.04		(p=.049)

Reduced Sense of Accomplishment (Burnout)

The test of homogeneity of variance (Levene's test) showed its equality (p=.26). The analysis of variance elicited no existing significant difference between the groups (p=.39) (Table 34).

Table 34. Reduced Sense of Accomplishment in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	87	2.62	.85	F=.947	-
(R2) Belarusian professionals	8	2.94	1.18	df=2	
(R3) Russian professionals	21	2.83	.62	p=.39	
Total	116	2.68	.84		

Physical Symptoms

Levene's test showed that the variance was equal (p=.50). The analysis of variance revealed that the groups were not significantly different in their perception of physical symptoms (p=.55) (Table 35).

Table 35. Physical Symptoms in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	86	3.04	1.36	F=.61	-
(R2) Belarusian professionals	8	3.56	1.13	df=2	
(R3) Russian professionals	21	2.97	1.41	p=.55	
Total	115	3.06	1.35		

Positive Affect (PANAS)

Levene's test showed that the variance in the data was homogeneous ($p=.95$). However, the further analysis of variance revealed an absence of statistically significant difference between the groups ($p=.23$) (Table 36).

Table 36. Positive Affect in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	85	3.67	.68	F=1.49	-
(R2) Belarusian professionals	8	3.47	.70	df=2	
(R3) Russian professionals	21	3.40	.80	p=.23	
Total	114	3.61	.70		

Negative Affect (PANAS)

Levene's test showed that there was no difference in the variance in the groups ($p=.15$). The results of the variance analysis did not detect statistically significant difference between the groups ($p=.34$) (Table 37).

Table 37. Negative Affect in Various Groups of Dancers

Group	N	Mean	SD	ANOVA	Scheffe
(R1) Belarusian students	85	1.88	.71	F=1.10	-
(R2) Belarusian professionals	8	1.50	.33	df=2	
(R3) Russian professionals	21	1.87	.76	p=.34	
Total	114	1.85	.70		

Overview

Overall results concerning the level of the variables measured in the current study were presented. Perceived autonomy support of the Russian-speaking dancers was reported of medium intensity, slightly exceeding the scale median. All needs were average in perceived satisfaction as well. Though the two aspects of the autonomy represented the medium level, their levels were slightly different. Furthermore, the dancers reported being highly motivated by autonomous forms of regulation (autonomous and identified), lowering in extrinsic one and amotivation. Introjected motivation was of a lower-medium level. Finally, the total scores of positive well-being outcomes (self-esteem and positive affect) reached upper-medium level, while the level of negative ones varied from medium for burnout dimensions, to lower-medium for physical symptoms, and low for negative affect.

To examine the differences in the mean variables between the groups of dancers who joined the study we performed the one-way analysis of variance and a post hoc test. The results showed that the furthest groups in terms of variance were the Belarusian ballet students and the Russian professional dancers who varied by five variables. The Belarusian students perceived more support from the choreographers (dance teachers) than the Russian professionals, and satisfied their need for autonomy more (intrinsically perceived locus of control), they executed higher levels of autonomous motivation regulation than the latter, identified motivation regulation and, finally, they reported lower degree of the dance devaluation dimension of burnout.

There were identified differences between the Belarusian dance students and professional ballet theatre dancers. The students indicated higher levels of perceived autonomy support from the choreographers or dance teachers than professionals, they also revealed higher degree of identified, introjected, and external forms motivation regulation than the theatre dancers.

Ultimately, the results revealed that the differences between professional dancers employed at the theatres in two countries –Belarus and Russia, existed for one well-being outcome. The Russian professionals reported lower levels of the dance devaluation dimension of burnout compared to the Belarusian professional theatre dancers.

Interestingly, the differences between the students and professionals were more common. However, it was true only in the case of perceived social support, while in other cases statistical significance approved only one of the professional groups being varied from the students. Nevertheless the mean values of both the Russian and Belarusian professionals were often close. In addition, we would like to address the fact that the Belarusian students perceived higher motivation in both autonomous and controlling types of regulation. In general, they presented more positive profiles in motivation-related variables.

6.3 Mean Differences on Bases of Gender and Professional Status

Perceived Autonomy Support

A two-way analysis of variance found that the professional level (a status of a student or a professional) had a significant effect ($F(1,111) = 15.994, p=.000, \eta^2 = .126$) (Table 38). The students perceived their dance college as more autonomy supportive environment than the

professionals felt about their theatres. The gender did not reveal a significant effect ($F(1,111) = 1.495, p = .224, \eta^2 = .013$). The gender did not have an impact on the perceived autonomy support in our study (see Table 38): both female and male dancers were not significantly different in the feeling of being supported. The interaction of the genders and the professional levels did not show a significant value as well ($F(1,111) = .009, p = .927, \eta^2 = .000$).

Table 38. Gender and Professional Level Effects for Perceived Autonomy Support

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	4.52	1.22	26	4.85	1.31	60	4.75	1.28	86
Professionals	3.31	1.18	12	3.70	1.63	17	3.54	1.45	29
Total	4.14	1.32	38	4.60	1.45	77	4.44	1.42	115

Internal Locus of Control (Autonomy)

A two-way analysis of variance found that the skill level did have a significant effect ($F(1,111) = 27.288, p = .000, \eta^2 = .196$); the students tended to show higher degree of internal perceived locus of control compared to the professionals (see Table 39). The gender did not indicate a significant effect ($F(1,111) = .171, p = .68, \eta^2 = .002$). The internal perceived locus of control was not associated with gender type of the dancers (Table 39). The interaction of the factors (the gender types and the two professional levels) did not reveal to be significant as well ($F(1,111) = .101, p = .75, \eta^2 = .001$).

Table 39. Gender and Professional Level Effects for Internal Perceived Locus of Control

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	3.74	.84	27	3.60	.81	60	3.65	.82	87
Professionals	2.69	1.27	12	2.68	.64	17	2.68	.93	29
Total	3.42	1.09	39	3.40	.86	77	3.41	.94	116

Perceived Choice and Decision Making (Autonomy)

A two-way analysis of variance found that the professional level did not have a significant effect ($F(1,111) = 3.482, p = .065, \eta^2 = .031$); both the students and the professionals felt similarly in degree of choice and decision they can make in relation to dancing (Table 40). The gender did not indicate a significant effect ($F(1,111) = .174, p = .68, \eta^2 = .002$). The genders did not identify difference in how the dancers were heard and paid attention to at their

occupation (see Table 40). The interaction of the factors (the gender types and the two professional levels) did not reveal to be significant as well ($F(1,111) = .511, p = .476, \eta^2 = .005$).

Table 40. Gender and Professional Level Effects for Perceived Choice and Decision Making

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	3.32	1.33	27	3.68	1.37	59	3.57	1.37	86
Professionals	2.96	1.90	12	2.86	1.23	16	2.90	1.52	28
Total	3.21	1.51	39	3.50	1.38	75	3.40	1.43	114

Perceived Competence

A two-way analysis of variance indicated that the professional level did not have a significant effect ($F(1,111) = 3.485, p = .065, \eta^2 = .03$) (Table 41). The professional levels were not associated the perceived competence of the dancers. The gender did not reveal a significant effect as well ($F(1,111) = .002, p = .968, \eta^2 = .000$). There were no identified significant difference in the feeling of competence between female and male dancers (see Table 41). The interaction of the genders and the professional levels also did not show a significant value ($F(1,111) = .255, p = .614, \eta^2 = .002$).

Table 41. Gender and Professional Level Effects for Perceived Competence

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	4.25	.80	27	4.38	1.15	60	4.34	1.05	87
Professionals	4.82	.76	12	4.71	1.34	17	4.75	1.12	29
Total	4.43	.82	39	4.45	1.19	77	4.44	1.08	116

Relatedness

A two-way analysis of variance indicated that the professional level did not have a significant effect ($F(1,111) = 2.565, p = .112, \eta^2 = .02$) (Table 42). The students and professional theatre dancers perceived similarly relatedness to the group. The gender indicated a significant effect ($F(1,111) = 3.799, p = .05, \eta^2 = .033$). The females tended to feel more sense of belonging at their establishment than the males did experience it at their locations (see Table 42). The interaction of the genders and the professional levels also did not show a significant value ($F(1,111) = .596, p = .442, \eta^2 = .005$).

Table 42. Gender and Professional Level Effects for Perceived Relatedness

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	3.26	1.08	27	3.54	1.08	60	3.45	1.08	87
Professionals	2.70	.97	12	3.34	1.06	17	3.08	1.07	29
Total	3.09	1.07	39	3.49	1.07	77	3.36	1.08	116

Autonomous Motivation Regulation (BRSQ)

A two-way analysis of variance found that the professional level did have a significant effect ($F(1,111) = 10.197, p = .002, \eta^2 = .084$); the students tended to express more self-determination compared to the professionals (see Table 43). The gender did not indicate a significant effect ($F(1,111) = 1.017, p = .316, \eta^2 = .009$). The autonomous regulation was not associated with gender type of the dancers (see Table 43). The interaction of the factors (the gender types and the two professional levels) did not reveal to be significant as well ($F(1,111) = .001, p = .977, \eta^2 = .000$).

Table 43. Gender and Professional Level Effects for Autonomous Regulation

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	5.60	1.14	27	5.86	1.15	59	5.78	1.15	86
Professionals	4.82	1.20	12	5.06	.81	17	4.96	.98	29
Total	5.36	1.20	39	5.68	1.13	76	5.57	1.16	115

Identified Motivation Regulation (BRSQ)

A two-way analysis of variance found that the professional level had a significant effect ($F(1,111) = 57.106, p = .000, \eta^2 = .34$); the students showed higher degree of identified motivation regulation compared to the professionals (Table 45). The gender also had a significant effect ($F(1,111) = 11.848, p = .001, \eta^2 = .096$). The female ballet dancers displayed a higher degree of identified regulation than male ones (see Table 45). The interaction of the genders and the professional levels was significant as well ($F(1,111) = 7.666, p = .007, \eta^2 = .065$). The male professional theatre dancers showed the lowest rate in the identified motivation regulation, while the female ballet students did the highest (Table 45).

Table 45. Gender and Professional Level Effects for Identified Regulation

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	6.18	.87	27	6.32	.88	59	6.27	.88	86
Professionals	4.00	1.17	12	5.31	1.14	17	4.77	1.31	29
Total	5.51	1.39	39	6.09	1.03	76	5.89	1.19	115

Introjected Motivation Regulation (BRSQ)

A two-way analysis of variance found that the professional level did have a significant effect ($F(1,111) = 9.08, p = .003, \eta^2 = .076$); the students showed higher degree of introjected motivation regulation compared to the professionals (see Table 44). The gender did not reveal a significant effect ($F(1,111) = .385, p = .536, \eta^2 = .003$). The introjected regulation was not associated with gender type of the dancers (Table 44). The interaction of the genders and the professional levels also was not significant for this form of motivation regulation ($F(1,111) = 1.228, p = .27, \eta^2 = .011$).

Table 44. Gender and Professional Level Effects for Introjected Regulation

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	3.99	1.66	27	3.33	1.79	59	3.54	1.77	86
Professionals	2.42	1.60	12	2.60	1.66	17	2.53	1.61	29
Total	3.51	1.78	39	3.17	1.78	76	3.28	1.78	115

External Motivation Regulation (BRSQ)

A two-way analysis of variance found that the professional level had a significant effect ($F(1,111) = 10.074, p = .002, \eta^2 = .083$); the students showed higher degree of external motivation regulation than the professional theatre dancers (Table 46). The gender also had a significant effect ($F(1,111) = 5.153, p = .025, \eta^2 = .044$). The female ballet dancers displayed a lower degree of external regulation than male ones (Table 46). The interaction of the genders and the professional levels did not show a significant value ($F(1,111) = .095, p = .758, \eta^2 = .001$).

Table 46. Gender and Professional Level Effects for External Regulation

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	3.03	1.16	27	2.44	1.05	59	2.62	1.11	86
Professionals	2.23	1.07	12	1.78	.70	17	1.97	.88	29
Total	2.78	1.18	39	2.29	1.01	76	2.46	1.09	115

Amotivation (BRSQ)

A two-way analysis of variance found that the professional level did not have a significant effect ($F(1,111) = 3.656, p=.058, \eta^2=.032$) (Table 47). The dancers experienced amotivation regardless the professional level. The gender also did not reveal a significant effect ($F(1,111) = .076, p=.783, \eta^2=.001$). The gender was not associated with the experience of amotivation in our study (see Table 47). The interaction of the genders and the professional levels did not show a significant value as well ($F(1,111) = 1.679, p=.198, \eta^2=.015$).

Table 47. Gender and Professional Level Effects for Amotivation

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	2.31	1.63	27	2.97	1.96	59	2.77	1.88	86
Professionals	3.67	2.20	12	3.24	1.95	17	3.41	2.03	29
Total	2.73	1.90	39	3.03	1.95	76	2.93	1.93	115

Self-esteem

A two-way analysis of variance found that the professional level did have a significant effect ($F(1,111) = 2.627, p=.108, \eta^2=.023$); the students and students showed no difference in evaluation of their self generally (Table 48). The gender indicated a significant effect ($F(1,111) = 8.278, p=.005, \eta^2=.069$). The female dancers perceived themselves in a more positive way than male ones (see Table 48). The interaction of the factors (the gender types and the two professional levels) did not reveal to be significant ($F(1,111) = .012, p=.913, \eta^2=.000$).

Table 48. Gender and Professional Level Effects for General Self

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	4.28	.59	26	4.69	.69	60	4.57	.69	86
Professionals	4.50	.80	12	4.95	.62	17	4.76	.72	29
Total	4.35	.66	38	4.75	.68	77	4.62	.70	115

Physical and Emotional Exhaustion (Burnout)

A two-way analysis of variance indicated that the professional level did not have a significant effect ($F(1,111) = .865, p=.354, \eta^2=.008$) (Table 49). The experience of a physical and emotional exhaustion as a component of the dancers' burnout was not significantly different between the choreography college students and the theater dancers. The gender did not reveal a significant effect as well ($F(1,111) = .379, p=.539, \eta^2=.003$). The genders did not differ in

this factor of burnout syndrome (see Table 49). The interaction of the genders and the professional levels also did not show a significant value ($F(1,111) = 1.992, p = .161, \eta^2 = .017$).

Table 49. Gender and Professional Level Effects for Physical and Emotional Exhaustion

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	2.24	.67	27	2.67	1.07	60	2.53	.98	87
Professionals	2.73	1.18	12	2.56	.73	17	2.63	.92	29
Total	2.39	.87	39	2.64	1.00	77	2.56	.96	116

Dance Devaluation (Burnout)

A two-way analysis of variance indicated that the professional level did not have a significant effect ($F(1,111) = 2.26, p = .136, \eta^2 = .02$) (Table 50). The physical and emotional exhaustion mean values for the students and the theatre professional dancers were not distinct. The gender did not reveal a significant effect as well ($F(1,111) = .094, p = .759, \eta^2 = .001$). The genders were similar in the means of this factor of burnout syndrome (see Table 50). The interaction of the genders and the professional levels also did not show a significant value ($F(1,111) = .122, p = .727, \eta^2 = .001$).

Table 50. Gender and Professional Level Effects for Dance Devaluation

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	2.23	.97	27	2.08	1.09	60	2.13	1.05	87
Professionals	2.50	1.08	12	2.51	.92	17	2.51	.97	29
Total	2.32	1.00	39	2.18	1.06	77	2.22	1.04	116

Reduced Sense of Accomplishment (Burnout)

A two-way analysis of variance found that the professional level was an insignificant effect ($F(1,111) = 1.166, p = .282, \eta^2 = .01$) (Table 51). The professional status did not influence the dancers' sense of accomplishment. The gender did not reveal a significant effect ($F(1,111) = 2.418, p = .123, \eta^2 = .021$). The gender did not have an impact on the degree of a sense of accomplishment the participants experienced (see Table 51). The interaction of the genders and the professional levels did not show a significant value as well ($F(1,111) = .074, p = .786, \eta^2 = .001$).

Table 51. Gender and Professional Level Effects for Reduced Sense of Accomplishment

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	2.85	.92	27	2.52	.80	60	2.62	.85	87
Professionals	3.00	.85	12	2.76	.75	17	2.86	.79	29
Total	2.90	.89	39	2.57	.79	77	2.68	.84	116

Physical Symptoms

A two-way analysis of variance indicated that the professional status did not have a significant effect ($F(1,111) = .258, p = .613, \eta^2 = .002$) (Table 52). The theatre dancers and choreography college students experienced physical symptoms just at the same intensity. The gender did not reveal a significant effect as well ($F(1,111) = .073, p = .788, \eta^2 = .001$). The physical symptoms were as distracting for females as for males (see Table 52). The interaction of the genders and the professional levels also did not show a significant value ($F(1,111) = .384, p = .536, \eta^2 = .003$).

Table 52. Gender and Professional Level Effects for Physical Symptoms

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	2.85	1.38	26	3.12	1.36	60	3.04	1.36	86
Professionals	3.19	1.61	12	3.09	1.17	17	3.13	1.35	29
Total	2.96	1.44	38	3.11	1.31	77	3.06	1.35	115

Positive Affect (PANAS)

A two-way analysis of variance indicated that the professional level did not have a significant effect ($F(1,111) = 3.50, p = .064, \eta^2 = .03$) (Table 53). The dancers were positively affected regardless the professional level. The gender did not reveal a significant effect ($F(1,111) = .275, p = .601, \eta^2 = .002$). The gender did not have an impact on positive emotions the dancers tended to feel (see Table 53). The interaction of the genders and the professional levels did not show a significant value as well ($F(1,111) = .985, p = .323, \eta^2 = .009$).

Table 53. Gender and Professional Level Effects for Positive Affect

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	3.72	.73	26	3.65	.66	59	3.65	.66	59
Professionals	3.28	.91	12	3.51	.64	17	3.42	.76	29

Total	3.58	.80	38	3.62	.65	76	3.61	.70	114
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Negative Affect (PANAS)

A two-way analysis of variance indicated that the professional level did not have a significant effect ($F(1,111) = .893, p = .347, \eta^2 = .008$) (Table 54). The dancers experienced negative affect in both groups of the students and the professionals. The gender did not reveal a significant effect as well ($F(1,111) = .124, p = .725, \eta^2 = .001$). The genders had similar mean values in negative affect (see Table 54). The interaction of the genders and the professional levels also did not show a significant value ($F(1,111) = .42, p = .518, \eta^2 = .004$).

Table 54. Gender and Professional Level Effects for Negative Affect

Professional level	Gender								
	males			females			total		
	\bar{X}	sd	n	\bar{X}	sd	n	\bar{X}	sd	n
Students	1.99	.84	26	1.83	.65	59	1.88	.71	85
Professionals	1.74	.80	12	1.79	.61	17	1.77	.68	29
Total	1.91	.83	38	1.82	.63	76	1.85	.70	114

Overview

The two-way analysis of variance completed to examine if and how the factors of professional status and gender of the dancers affect the differences in variable means. The results reported statistically significant difference between the choreography college students and theatre ballet dancers (dancers of two professional levels) on the list of study variables. The students compared to professional dancers showed significantly higher degree of perceived autonomy support, internal perceived locus of control as a construct of autonomy, autonomous motivation regulation, identified motivation regulation, introjected motivation regulation, and external motivation regulation. To sum up, the students perceived more autonomy support from the authorities at the college than the professional ballet dancers and higher satisfaction of the need for autonomy (internal perceived locus of control). Remarkably, the students also reported higher degree of both autonomous and controlled motivation regulation, leaving just amotivation not relevant to the professional status.

In turn, gender was a significant effect for the variance among the dancers for some variables as well. The female dancers perceived a higher satisfaction of the psychological need for relatedness, and displayed a higher degree of identified regulation than male ones as well as a higher self-esteem; however, the female ballet dancers displayed a lower degree of external

regulation than males. In sum, the females tended to experience more sense of belonging at their establishment. Their behaviour tended to be driven by identified motives (closer to the autonomous motivation on the self-determination continuum), but less external (controlled) ones than the males. Finally, they experienced a higher self-esteem than the latter.

The interaction of the genders and the professional levels was significant for the identified motivation regulation: the male professional theatre dancers showed the lowest rate in the identified motivation regulation, while the female ballet students did the highest.

6.4 Relationships between the Variables

In order to examine relationships between the variables and to test the universality of the Self-Determination Theory (Deci & Ryan, 1985, 2000), we completed the bivariate correlation analysis. The hypothesis claimed to see the correlations as the Figure 3 reflected. Since the relationships of the variables can be different for the choreography college students and the professional theatre dancers, we analyzed the correlations separately for these two groups.

To use parametric statistics for correlations we needed to assess a normality of mean distribution for the variables. The Kolmogorov-Smirnov test and values of kurtosis and skewness showed that three variables were not normally distributed in the dance students group: all measuring motivation regulation which is Autonomous (K-S=1.47, $p=.027$, negative skewness of -1.08), Identified (K-S = 2.24, $p=.000$, negative skewness of -1.32, kurtosis of 1.39) and Amotivation (K-S= 1.69, $p=.007$). As the p-value provided by the Kolmogorov-Smirnov test are below 0.05 that indicated the distributions were not normal (Sheskin, 2007), we performed bivariate Spearman's product moment correlation for these variables, while all others were correlated using parametric bivariate Pearson's product moment correlation, since the tests showed their means were normally distributed ($p>.05$). The Kolmogorov-Smirnov test failed to report non-normal distribution of all variables in the professionals' sample ($p>.05$), therefore we used parametric method of bivareate Pearson's product moment correlation to study the relationships between the variables. The descriptive statistics and the intercorrelations among the variables appear in Table 54 and Table 55 for ballet students and theatre professional, correspondingly.

In line with the main hypothesis, the correlations were examined and reported pairwise of all the variables to examine the relationships between perceived autonomy support and perceived

need satisfaction, various forms of motivation regulation, and finally well-being outcomes for the ballet dancers. To put it in another way, all the variables were intercorrelated to check if there are relationships corresponding SDT. In general, as is typical in a hypothesized mediational relation, the context variables tended to be more strongly related to the need satisfaction (mediating) variables to the outcome variables. Need satisfaction variables also were strongly related to the outcome variables. The relationships of the variables will be discussed separately in the groups in line with the framework presented earlier (see Figure 2).

Correlations for the Group of Students

Perceived Autonomy Support

The values of perceived autonomy support correlated with all the indices of basic needs satisfaction on moderate level which is in line with the theoretical model tested in current study. The correlations showed that perceived autonomy support correlated positively and highly with the perceived need for autonomy in terms of internal perceived locus of control ($r=.46, p<.01$), choice and decision-making ($r = .47, p<.01$), perceived need for relatedness ($r = .50, p<.01$), and perceived competence ($r = .37, p<.01$) (see Table 54).

The intercorrelations of perceived autonomy support and motivation regulation forms revealed three significant relationships: positive correlation of autonomy support with autonomous motivation regulation ($r=.49, p<.01$), positive correlation of identified motivation regulation ($r=.34, p<.01$), and negative correlation of amotivation ($r= -.29, p<.01$). The relationships corresponded with the hypothesis of the study based on SDT (Deci & Ryan, 1985, 2000). Perceived autonomy support emerged to be unrelated to introjected and external forms of motivation regulation among students in our sample.

The perceived autonomy support was significantly associated with well-being outcomes for choreography college students in this study: autonomy support at the college straight related to self-esteem ($r=.38, p<.01$), positive affect ($r=.53, p<.01$), and invert related to negative affect ($r= -.27, p<.01$), burnout dimensions of physical emotional exhaustion ($r= -.28, p<.01$), dance devaluation ($r= -.29, p<.01$) and reduced sense of accomplishment ($r= -.66, p<.01$).

Psychological Needs Correlations

Previous research done by Deci and Ryan (1985, 2000) and Quedsted and Duda (2007, in press) reported the higher degree of basic psychological needs satisfaction to be associated with more autonomous forms of motivation regulation and less with amotivation. Similarly, mediating the need satisfaction and well-being outcomes, the forms of motivation higher on self-determination axis are expected to correlate positively with self-esteem and positive emotions and negatively with burnout symptoms, physical and emotional negative indicators, and in contrast, amotivation as the most unfavourable form of motivation regulation should have invert relations to the above discussed.

The intercorrelations of the psychological needs showed their highly significant moderate to weak correlations with each other with only one insignificant correlation (intrinsically perceived locus of control and competence). The sequence of three needs satisfaction and forms of motivation regulation correlated positively with each psychological need (see Table 54). Surprisingly, the intercorrelations of other motivation regulation forms but autonomous regulation and the needs satisfaction appeared to be insignificant.

In turn, confirming our framework, all three basic needs satisfaction were related highly and positively to such well-being outcomes as self-esteem, positive affect, and negatively correlated with the reduced sense of accomplishment. Interestingly, negative affect was invert related only to relatedness and one indicator of autonomy, while the physical and emotional exhaustion dimension of burnout correlated just with intrinsically perceived locus of control (see Table 54). The latter aspect of perceived autonomy fitted the best to the SDT.

Motivation Regulation

The forms of motivation regulation correlated in the expected direction. Consistently with SDT, self-determined motivation forms (autonomous and identified regulation) correlated significantly with each other, and weakly and negatively correlated with more controlled forms of motivation (introjected and external regulation), and negatively with amotivation in the sample of dance students (see Table 54).

The relationships between the forms of motivation regulation and well-being outcomes indicated a predicted pattern: the higher degree of self-determination in the forms of

motivation positively correlated with more favourable well-being outcomes, and negatively correlated with unfavourable well-being outcomes like burnout. The opposite relationships were expected from controlled motivation regulation forms (introjected and external regulation) and amotivation.

The brightest results were found for extreme forms of motivation regulation- autonomous and amotivation, where the first was significant and positively correlated with positive well-being variables such as self-esteem ($r = .51, p < .01$) and positive affect ($r = .46, p < .01$), and significant and negatively associated with the negative well-being variables of reduced accomplishment dimension of burnout ($r = -.50, p < .01$), devaluation dimension of burnout ($r = -.29, p < .01$), and the physical and emotional exhaustion ($r = -.27, p < .05$). The amotivation regulation revealed positive and significant relationships with physical symptoms ($r = .44, p < .01$), all the burnout dimensions (ranging from $r = .26$ to $r = .41, p < .01$), and negative affect ($r = .22, p < .05$).

Indicators of Well-Being

The relationships of the variables measuring well-being and health outcomes correlated with each other as expected. For instance, self-esteem of student dancers was related positively and high to positive affect ($r = .39, p < .01$) and negatively to negative affect ($r = -.33, p < .01$) and to the reduced sense of accomplishment dimension of burnout, which in turn positively correlated with physical symptoms ($r = .58, p < .01$). Eventually, negative by nature variables exposed inverted relation such as the burnout dimension of reduced sense of accomplishment ($r = -.43$).

Correlations for Professional Theatre Dancers

Perceived Autonomy Support

Table 55 presents the intercorrelations of the variables among professional ballet dancers employed in Belarus and Russia. The results revealed the perceived autonomy support relates to the basic psychological needs in the way it was estimated by SDT: a positive strong significant correlation between the autonomy support and competence ($r = .57$), relatedness ($r = .59$), the choice and decision making aspect of autonomy ($r = .63$). However, the other

constraint of the autonomy need –intrinsically perceived locus of control indicated a weak insignificant relationship with perceived autonomy support (see Table 55).

The results showed that the forms of motivation regulation are not linked to the perceived autonomy support in the group of professionals (only low insignificant correlations). The correlations between the perceived autonomy support and well-being outcome were significant and appeared to follow SDT in cases of positive affect ($r=.37$, $p<.05$) and the reduced sense of accomplishment dimension of burnout ($r=.37$, $p<.05$), the other relationships were not significant.

Psychological Needs

The variables of the perceived psychological needs satisfaction related to each other as expected: the choice and decision making aspect of autonomy had positive and high correlations with relatedness ($r=.74$), perceived competence ($r=.45$), and with the other aspect of autonomy ($r=.59$). The rest correlations were not significant.

The relationships of the basic needs with the forms of motivation regulation indicated high and positive correlation between the choice and decision making construct of autonomy with external form of motivation regulation ($r=.48$), and a negative correlation between the other construct of autonomy need (intrinsically perceived locus of control) with amotivation ($r=.37$). Such results corresponded to the framework of SDT. All the rest relations were insignificant for the professional theatre dancers (see Table 55).

In line with above mentioned theory (Deci & Ryan, 1985, 2000) together with the previous field studies (Quested & Duda, in press), the psychological needs related to the well-being outcomes: the highlight of such a relationship pattern were represented by positive correlations between the needs and positive affect and by negative correlations between the needs and the reduced sense of accomplishment dimension of burnout (see Table 55). Interestingly, only higher perceived competence was associated with self-esteem among professionals ($r=.37$).

Motivation Regulation

The forms of motivation regulation correlated with health and well-being outcomes corresponding to the model (Figure 3). Autonomous motivation regulation had a positive correlation with self-esteem ($r=.56$), and a negative one with the dance devaluation dimension of burnout ($r= -.41$). In contrast, external motivation (controlled motivation type) regulation was positively related to two dimensions of burnout ($r=.37$ and $r=.38$) and negative affect ($r=.38$). Amotivation positively correlated with the dance devaluation dimension of burnout ($r=.51$). The listed relations were favouring SDT.

Indicators of Well-Being

The correlations between well-being outcomes for professional dancers revealed a similar pattern as among the students group. The self-esteem negatively correlated with the dance devaluation dimension of burnout ($r= -.42$), and the negative affect with the physical symptoms ($r= .43$). Nevertheless, opposite to the hypothesis the positive affect positively related to the negative affect ($r=.48$).

Table 54. Descriptive Statistic, and Correlations between variables for Ballet *Student* dancers (n = 87, Valid n listwise = 82)

VARIABLES	\bar{X}	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. AS	4.75	1.28	1																
2. IPLOC	3.65	.82	.46**	1															
3. CHD	3.57	1.37	.47**	.49**	1														
4. PC	4.34	1.05	.37**	.18	.23*	1													
5. REL	3.45	1.08	.50**	.45**	.55**	.26*	1												
6. AUT_M	5.78	1.15	.49**	.47**	.31**	.36**	.40**	<i>1</i>											
7. IDEN_M	6.27	.88	.34**	.37**	.09	.19	.19	.45**	1										
8. INTJ_M	3.54	1.77	.19	.14	.21	.19	.10	.23*	.21	<i>1</i>									
9. EXT_M	2.62	1.11	-.02	.02	.05	-.09	-.06	-.15	.38**	-.02	1								
10. AMOT_M	2.77	1.88	-.29**	-.17	-.16	-.16	-.26*	-.18	.22*	-.04	.19	<i>1</i>							
11. SDQ	4.57	.69	.38**	.37**	.36**	.47**	.45**	.51**	-.07	.21*	-.31**	-.17	1						
12. BO_EXH	2.53	.98	-.28**	-.31**	-.02	-.12	-.06	-.27*	.09	-.15	.01	.41**	-.17	1					
13. BO_DEV	2.13	1.05	-.29**	-.16	-.01	-.19	.01	-.29**	.17	-.15	.24*	.35**	-.24*	.23*	1				
14. BO_ACC	2.62	.85	-.66**	-.54**	-.43**	-.53**	-.54**	-.50**	-.15	-.32**	.01	.26*	-.50**	.21	.10	1			
15. PHYS	3.04	1.36	-.19	-.20	-.01	-.06	-.21	-.14	.23*	-.08	.05	.44**	-.23*	.58**	.18	.21	1		
16. PA	3.67	.68	.53**	.39**	.32**	.46**	.25*	.46**	.24*	.24*	-.05	-.18	.39**	-.09	-.13	-.43**	-.09	1	
17. NA	1.88	.712	-.27*	-.24*	-.02	-.10	-.27*	-.34**	.20	.23*	.28**	.22*	-.33**	.21	.12	.16	.35**	-.18	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The Spearman's correlations for non-normal distributed variables are reflected in *italics*, regular print was used for the Pearson's correlations.

AS= perceived autonomy support, IPLOC= intrinsically perceived locus of control aspect of autonomy, CHD= choice and decision making aspect of autonomy, PC= perceived competence, REL= perceived relatedness, AUT_M= autonomous motivation, INTJ_M= introjected motivation, IDEN_M= identified motivation, EXT_M= external motivation, AMOT_M= amotivation, SDQ= self-esteem, BO_EXH= physical and emotional exhaustion dimension of burnout, BO_DEV= dance devaluation dimension of burnout, BO_ACC= reduced sense of accomplishment dimension of burnout, PHYS= physical symptoms, PA = positive affect, NA= negative affect

Table 55. Descriptive Statistic, and Correlations between variables for Ballet *Professional* dancers (n = 29, Valid n listwise = 28)

VARIABLES	\bar{X}	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. AS	3.54	1.45	1																
2. IPLOC	2.68	.93	.28	1															
3. CHD	2.90	1.52	.63**	.59**	1														
4. PC	4.75	1.12	.57**	.11	.45*	1													
5. REL	3.08	1.06	.59**	.31	.74**	.31	1												
6. AUT_M	4.96	.98	.16	.13	.02	.25	.20	1											
7. IDEN_M	4.77	1.31	.23	.04	-.15	-.03	.21	.47*	1										
8. INTJ_M	2.53	1.61	.08	.00	.09	-.17	.34	.20	.12	1									
9. EXT_M	1.97	.88	.32	.28	.48*	.25	.32	.02	.36	-.06	1								
10. AMOT_M	3.41	2.03	.16	-.37*	-.03	.17	.28	.07	.29	-.09	.13	1							
11. SDQ	4.76	.72	.21	.19	.24	.37*	.19	.56**	-.33	.23	-.27	-.30	1						
12. BO_EXH	2.63	.92	-.23	-.12	-.12	-.16	-.01	-.15	.36	-.10	.37*	.13	-.36	1					
13. BO_DEV	2.51	.97	.02	-.26	.14	.19	.16	-.41*	.15	-.35	.38*	.51**	-.42*	.21	1				
14. BO_ACC	2.86	.79	-.45*	-.31	-.52**	-.51**	-.58**	-.16	-.08	.02	-.10	-.15	-.26	-.06	.03	1			
15. PHYS	3.13	1.35	.08	.06	.01	-.17	-.02	.29	.32	.25	.15	-.01	-.05	.30	-.13	.10	1		
16. PA	3.42	.76	.37*	.47**	.54**	.20	.59**	.31	.08	.26	.21	-.01	.34	.19	-.02	-.34	.19	1	
17. NA	1.77	.68	.27	.04	.36	.08	.24	-.18	.11	.13	.38*	.10	-.17	.26	.35	-.02	.43*	.48**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

AS= perceived autonomy support, IPLOC= intrinsically perceived locus of control aspect of autonomy, CHD= choice and decision making aspect of autonomy, PC= perceived competence, REL= perceived relatedness, AUT_M= autonomous motivation, INTJ_M= introjected motivation, IDEN_M= identified motivation, EXT_M= external motivation, AMOT_M= amotivation, SDQ= self-esteem, BO_EXH= physical and emotional exhaustion dimension of burnout, BO_DEV= dance devaluation dimension of burnout, BO_ACC= reduced sense of accomplishment dimension of burnout, PHYS= physical symptoms, PA = positive affect, NA= negative affect

7 DISCUSSION

The aims of the present study were to adapt and translate ten inventories measuring the motivational sequence resting on the self-determination theory (SDT ;Deci & Ryan, 1985, 2000) and previous research in this area (Questid & Duda, in press) to be studied in Belarusian and Russian ballet dancers whose occupation is classic ballet dancing (elite ballet dancers or the students of elite level choreography college) and to investigate the validity and reliability of the scales. In addition, we aimed at studying if there are differences between the groups of the participants (the Belarusian dance students, the Belarusian professional dancers and the Russian professional dancers), genders, and professional statuses in measured variables. Finally, the relationships between the variables were studied in order to test the SDT among the ballet dancers in Russian-speaking countries.

The first purpose of this study was to examine if the scales chosen by Qusted and Duda (in press) to measure the SDT model are useable and reliable in Russian language. None of the indicators applied in this study had been translated in Russian before; therefore, at this stage it was important for our research to translate the scales and adapt them to Russian language. Furthermore, the results of the study are planed to be compared cross-culturally within the framework of the project being led by Professor Joan Duda and the PhD student Eleanor Qusted. For a better fitting to the samples used in the study two Russian versions of the questionnaire were adapted for groups at different professional levels: ballet students and professionals. However, this resulted only in minor differences in wording.

The measures were translated into the Russian and backtranslated to English to explore the meanings by the experts who checked that they remained the same. The structural results of the scales were similar to those in the original measures. The high indices of reliability and validity admitted the use of the Russian version of questionnaire.

Almost all the measures worked extremely well. We can suppose that translation procedure was successful. Only two items were eliminated from the measure of the Behaviour Regulation in Sport Questionnaire, four items of Athlete Burnout Questionnaire and one item of the Brief Measure of Positive and Negative Affect were removed to improve the construct validity of the indicators. These items did not work well which might be explained in some cases by cultural specific meaning of the asked phenomena, for instance, the content of work “alert” has a double meaning in Russian language. In the future these items in this format should be used with

consideration. Some formulations of the items were unclear such as “I dance but I wonder what the point is”, therefore, many dancers were asking about the idea of this statement. A confusion could be associated with the main area all dance people are engaged in. It would be useful to note that the ballet dancers are choosing their career at early age when they pass entering exam and dedicate their life to dancing: this is their world and lifestyle. The education they get is not enough to pursue another career later because studying time is mostly preoccupied with dancing classes, trainings and rehearsals. Consequently, such kind of statements related to amotivation should be treated carefully in Russian language as they could raise sensitive questions.

Moreover, the measure of behaviour regulation did show five instead of six factors: there were no differences between intrinsic and integrated forms of motivation regulation in Russian language. However, we would like to point out that, firstly, these forms of motivation regulation belong to the extreme autonomous motivation and they stand at the extreme of the self-determination continuum, and , secondly, the development of the measure described a range of its modification during four studies and that the researchers emphasised “carefully consider which BRSQ IM subscale(s) to include in studies” as their goal was to develop a measure, not to advocate one theoretical position over another”(Lonsdale et al., 2008).

The framework applied in this study was developed from the self-determination theory to examine how ballet dancers’ perception of an autonomy supportive environment affects their basic needs and motives in a ballet dancing context, and how this motivation regulation mediates well-being outcomes (Deci & Ryan, 2000, Quested & Duda, in press). No similar research has been done in Russian speaking countries according to the literature search either in English or Russian language.

Earlier studies held in various countries in different but ballet dancing context such as education (Deci et al., 1991), health care (Williams & Deci, 1998), physical activity (Chatzisarantis et al, 2005; Standage et al., 2003) and sports (Reinboth & Duda, 2006) presented sufficient evidence to expect SDT framework to work correspondingly in ballet dancing settings, which will confirm universality of the hypothesis proclaimed by Deci and Ryan (1985, 2000). The current study intended to test the SDT model on the bases of the research led by Quested and Duda (in press). We studied dancers in Belarus and Russia, countries that traditionally used to have autocratic politics and collectivist values, which might undermine the motivation and well-being of the dancers. However, at the same time the profession was highly valued and the dancers were world famous for their skills. Such contradictions to the above mentioned theory were attractive to be

addressed. For this purpose we applied the adapted to Russian language questionnaire set by Quested and Duda.

Ballet dancing as an occupation earned a prestigious status inside and outside the former USSR countries. However, it relies mostly on a tradition and on a high competition inside the company or school rather than on material rewards, since the dancers' salaries are low when they are not on concert tour. The observations and interviews conducted in parallel to the data collection reported high social pressure and low social support at the theatre and choreography college. Statements as "if you can walk you can perform" told by a choreographer to a dancer appear to be a vivid illustration of unhealthy relationship at the establishment. Such facts contrasted with high performance levels which created a curious controversy to explore from the angle of the self-determination theory. The theory posits universal psychological needs, and suggests that humans will be motivated and will display well-being according to the social support he or she will perceive from the environment. Therefore, the present study was designed as a step to test the universality of the theory to work in organizations of varied cultures. Belarus and Russia were picked up because the dominant experiences of the dancers of this former Eastern Bloc country have involved a totalitarian rather than democratic style of communication at workplaces and at school (Deci et al., 2001). Moreover, a prerequisite of the study was our opportunity to work in Russian language which made it easier to communicate with the dancers in their mother tongue. The specificity of an overlap between a dance occupational environment and Eastern European culture (Russian traditional ballet dancing culture) provoked appearance of current paper to spread the central hypothesis of SDT to dance settings affected from traditional autocratic management and learning.

The Level of Variables

To get a better picture of the motivation-related phenomena among the Russian and Belarusian ballet dancers, we will discuss the levels of the measures variables for all the participants together. Overall, the dancers reported medium perceived autonomy support and similar levels of perceived needs satisfaction. The dancers reported being highly motivated by autonomous forms of regulation (autonomous and identified). In contrast, the intensity of more controlled motives weakened towards less favourable forms of motivation according to the self-determination continuum (average scores for introjected motivation, and low for extrinsic and amotivation). Finally, the levels of positive well-being outcomes (self-esteem and positive affect) were slightly higher than average, while the negative ones varied from medium for burnout dimensions, to low

for physical symptoms and negative affect. Hence, the results can correspond with the SDT model. Some scales revealed significant differences in the levels of variables among the groups of participants, which is associated with particularity of each group of ballet dancers and their environment.

As mentioned earlier there were three groups of dancers participated in the study: Belarusian choreography students and professional ballet dancers employed at prestigious theatres in Belarus and Russia. Our study revealed that the Belarusian dance students and the Russian professional dancers are the most different groups where the first perceived more support from the choreographers or dance teachers, satisfied the need for autonomy more (intrinsically perceived locus of control), and were more autonomous (autonomous and identified forms of motivation regulation) in behaviour and, finally, they reported lower degree of the dance devaluation dimension of burnout compared to the Russian professionals. Such findings support the main hypothesis of the SDT model going through the sequence displayed in Figure 2.

There were also identified differences between the Belarusian dance students and professional ballet theatre dancers. The students reported receiving more autonomy support from the choreographers and executed more identified, introjected, and external forms motivation regulation than the professional theatre dancers in this country. It would be important to make a remark that the previous researches suggested external motivation not to be labelled as negative outcomes especially in elite sports, since a performance and results are essential part of this occupation and influences its nature (Chantal et al, 1996, as cited in Chatzisarantis & Hagger, 2007). Likewise ballet should be treated in the same way as a transitional state between sports and arts which accents even more outer motives. In this regard higher autonomous and controlled forms of motivation are the most common for a successful ballet dancer while amotivation should be at the bottom line, otherwise a dancer will not reach outstanding results.

The Russian and Belarusian theatre professionals appeared to be similar to each other what comes to the level of studied variables. They differed only in one well-being outcome variable; the Russian professionals suffered less from burnout symptom of dance devaluation. Therefore, the sample was homogeneous in terms of country of origin. Even though the group of Belarusian professional dancers is underrepresented (only eight dancers joined the study), we have evidence to suppose that the data collected there was highly reliable in the light of observed information.

Hence, according to our study the students experience more supportive psychological atmosphere and better treatment than the employed dancers, they have a feeling that they can influence dance activities more than Russian professionals and exhibit significantly higher levels of both autonomous and controlled motivation than professionals overall. These results were similar to the results measured in a Finnish sample of dancers (Ervola & Ridanpää, 2009). At last, the Russian professional dancers were much different from both Belarusian students and professionals in the dance devaluation aspect of burnout.

We suppose that the professional elite dancers from Minsk and St Petersburg are similar in the skill level and pressure received from the choreographers at work, and all others variables of the motivation sequence, but Russian artists showed more of burnout and were more tired because of dancing, which might be linked with the specific settings of the data collection- on the way to the concert destination. In the future we plan to explore more of the dancers from both countries and consider the possibility to include students from Vaganova Academy to research in-depth younger ballet dancers and to check if the Russian students are similar to Belarusian ones and how country affects the motivational processes related to ballet dancing.

Further, to go on with our research goals, we studied two groups of ballet dancers according to the professional status to analyse if and how this factor influences the dancers. In line with our expectations the students experienced higher autonomy support compared to the professional ballet dancers. The autonomy support can be biased within different factors where communication style and personality of the authorities can play deciding role. Moreover, the occupation and the aim of interaction with choreographers could be of importance, since the students are yet striving on their way to become a ballet dancer, so the educational goal intended to teach them and help to complete it. In contrast, the elite theatre dancers are already accomplished and they are demanded to perform of an exceptional level each time they dance. The findings confirmed the SDT framework, claiming the students felt that the environment provided opportunity to satisfy the need for autonomy more than professionals (internally perceived locus of control). The information collected with observation and interviews corresponds with the findings, for example, the theatre dancers were very emotional talking about opportunities to influence the choreography at the rehearsals and that “nobody will listen” to such suggestions. The motivation regulation was affected by the skill level as well: the students tended to be highly motivated in both intrinsic and extrinsic regulation, bottoming only in amotivation. The higher ranks in intrinsic forms of motivation of students fit well to the self-determination theory in the light of their higher autonomy satisfaction and perception of

autonomy support. Even though we found the external forms of motivation of the students were high, conflicting with the SDT hypothesis, which, however, could be explained with the specific characteristics of ballet dancing activity oriented to results.

Deci and Ryan's self-determination theory (1985, 2000) should fit to all groups of population. Therefore, we are interested in gender perspective in the motivation sequence (see Figure 2). The degree of perceived social support and need satisfaction, being mediated by motivation regulation, should correspond with well-being outcomes. On basis of previous research we hypothesized that the level of social support and demanding environment (e.g., low body mass) will affect females stronger than males, and consequently, according to the model they will report more negative indices of health-related outcomes. Nevertheless our findings showed quite different situation in Russian-speaking countries. We found significant gender differences in motivation regulation. The female dancers perceived a higher satisfaction of the psychological need for relatedness, and performed with a higher identified (closer to the autonomous motivation on the self-determination continuum) motivation regulation, but with lower external (controlled) motivation regulation than the males and experienced a higher self-esteem than the latter. Although the scientific evidence and specific characteristics of ballet dancing culture (e.g., more welcoming attitude for male dancers and a tighter diet for females) created an image that the ballet atmosphere propels more extrinsic than intrinsic motives in women. The case was not confirmed in our study, autonomous regulation was similar for both genders. But the females appeared to be more disciplined in dancing, for instance, following massive trainings and rehearsals to contribute for performance and professional growth; and male dancers were driven more by extrinsic motivation form. The latter can be associated with the pressure from the others to continue dancing, which can negatively affect the self-esteem, which confirms the SDT model.

Furthermore, analysis revealed interaction of the above discussed effects; therefore, male professional dancers indicated remarkably lower identified motivation while female ballet students did the highest. Such results show that the female students freely perform dance-related activities even if it is unpleasant, but it was considered as important, when male professionals refuse to.

Ultimately, our ambition was to provide evidence for testing SDT in ballet dance in Russian-speaking culture. Ballet has not been explored until the recent time (Quested & Duda, in press). Having an advantage of knowledge the cultural settings of this activity and mastery of the

mother tongue of the dancers, we considered cultural background of the two countries included into the study and the specific dancing settings which both tend to put pressure and maintain controlled regulation (e.g., fear of punishment, to a mistake, rivalry within the group for the part). According to SDT hypothesis, deficiency of autonomy support provided by environment blocks the basic need satisfaction (a positive correlation between perceived autonomy support and needs satisfaction). The motivation regulation was supposed to play a mediating role between three psychological needs and well-being outcomes. Therefore, the more satisfied needs for autonomy, competence and relatedness would be consistent with more autonomous form of motivation regulation, and opposite, the lower fundamental needs satisfaction would agree the more controlled motivation regulation on the self-determination continuum or amotivation. Finally, higher scores in controlled motivation regulation estimated to result in low positive well-being indicators (positive affects and self-esteem) and higher negative ones (burnout, physical symptoms, and negative affects) (Figure 3). We will discuss the relationships reflected in Figure 2 to make it more comprehensive while the dance students' and professionals' correlations are presented separately, since we predicted to see different relationships between the variables of motivation sequence on the basis of their distinction in autonomy support.

Perceived Autonomy Support

Our findings revealed that perceived autonomy support was positively related to the basic psychological needs in the way it was estimated in SDT: there were positive correlations among the students and professionals; however, perceived autonomy support was not associated with one constraint of autonomy (intrinsically perceived locus of control) in the group of theatre dancers.

The students' relationships between perceived autonomy support and the forms of motivation regulation confirmed the testing framework for autonomous (straight), identified (straight), and amotivation (inverted), while analysis for the professionals failed to identify any significant one.

The psychological environment was consentient with all indicators of well-being for the students, except physical symptoms, in line with our hypothesis. Autonomy support correlated positively with positive outcomes (self-esteem and positive affect) and negatively with unfavorable ones (burnout, negative affect and physical symptoms). In the case of the professional dancers, the correlations between the perceived autonomy support and well-being

outcome were significant and appeared to follow SDT only in cases of positive affect and reduced sense of accomplishment.

Needs Satisfaction

The fundamental needs correlated positively and highly with each other in the students' sample but some of the relationships were insignificant for the group of professionals. The relationships between psychological needs satisfaction of students and autonomous forms of motivation fitted the SDT framework well, being positively related. Satisfaction of autonomy among students was associated with being disciplined and capability to follow unpleasant but useful training procedures, feeling of belonging was invert related to amotivation in the same sample. All the relationships for students corresponded with our hypothesis. For professionals, on the other hand, one aspect of autonomy (intrinsically perceived locus of control) was negatively related to amotivation, but the other one (degree of choice and decision making) was positively associated with pressure from others (extrinsic motivation). If the first relationship confirmed the SDT theory, the latter contradicted with it.

The theoretical model was also confirmed with the positive relationships between the psychological needs satisfaction and positive well-being outcomes (self-esteem and positive affect), and negative ones with (burnout, negative affect and physical symptoms) in the sample of students. However, the professionals showed relevance of self-esteem, positive affect and reduced sense of accomplishment to psychological needs satisfaction.

Motivation Regulation

Our results were consistent with the pattern: autonomous forms of motivation positively correlated with more favourable well-being outcomes, and negatively with unfavourable well-being indices like burnout among students and professionals. In contrast to the SDT, introjected motivation was positively associated with self-esteem and positive affect and with lower burnout. However, this aspect of elite level occupation was discussed earlier.

Well-being Outcomes

In line with our hypothesis, our study showed that for all dancers positive well-being outcomes and negative ones were positively related to each other within the group, and negatively in cross

relationships. For instance, self-esteem was positive related to positive affect, but negatively to physical symptoms. However, in contrast with our framework we found that the higher positive affect of the students fitted their lower sense of accomplishment. In addition, contradictory results indicated both negative and positive affects positively correlated for the professional theatre dancers. Such a controversial relationship could be associated with a small sample of professional dancers in our study, and also with emotional instability of the artists who often projects different feelings and emotional switches at the stage.

In general, as is typical in a hypothesized mediational relation suggested in present study on the bases of previously done research in relation to the self-determination theory, the context variables tended to be more strongly related to the need satisfaction (mediating) variables to the motivation and the outcome variables. The results revealed that the SDT is applicable for Russian-speaking ballet dancers: motivation related mechanisms work in the culture with collectivist values similarly to individualistic cultures. Nevertheless, we identified few specific for Russian-speaking ballet dancers' differences in motivation regulation and its relationships with other variables such as medium level of introjected motivation reported for the dancers; it was positively related to autonomous regulation for professionals. This can be explained by competitiveness, orientation towards the goals and the style of communication in Russian elite level ballet dance. In addition, the dancers were highly intrinsically motivated for dancing. We see these facts as an effect of cultural meaning of ballet dancing that also shapes the attitude to profession in Eastern European countries.

LIMITATIONS OF THE STUDY

We should note that the sample of the dancers studied was not big enough and was mostly represented by the dance students, while the professional dancers were underrepresented and were in minority. The differences between the data collection procedure could influence the data. Only the Belarusian dance students filled the forms under my supervision, while the Russian ballet dancers did it during the trip from St Petersburg to Finland and did not have opportunity to ask a trained instructor questions about the forms. Finally, Russian dance students were not present in our study which is another difficulty to generalize the results, especially between students and professionals.

FUTURE RESEARCH

The presented data and results of the study will be compared cross-culturally within the running project of Professor Joan Duda and Eleanor Quested to analyse possible differences or similarities between variables and the correlations.

The biggest challenge for us was to organize the data collection of the professional theatre dancers to examine the variables relationships on the deeper bases and to provide privacy to the theatre dancers and consequently exclude the pressure from their employment authorities. Therefore, to avoid such factor, a construction of an internet questionnaire should be considered. This might also help to reach more Russian and Belarusian ballet dancers from other Russian-speaking countries like Ukraine.

Finally, we would like to suggest developing of the external motivation scale for professional theatre dancers that would include not only perception of pressure from other people but also extra items in relation to other aspects of this motivation regulation such as salary, or not having other alternative to the dancing skills, which could be more related to the specific characteristic of these age and occupation group at least in former-USSR.

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APPENDICES

1. The questionnaire (original)
2. Information sheets for dancers (original)
3. Informed Consent for dancers (original)
4. The questionnaire (translated and adapted)
5. Informed Consent for principals (in Russian)
6. Information sheets for dancers (adapted for Russian dancers)
7. Informed Consent for dancers (adapted for Russian dancers)

APPENDIX 1 : Original questionnaire adapted by Qusted and Duda for dancers

Today's date is: _____

PLEASE COMPLETE THIS BOX

***** ID Number (VERY IMPORTANT):

Enter your date of birth and how many brothers and/or sisters you have in total (e.g., 12/5/1988-1).

ANSWER HERE: / / -
 D M Y #

Please fill in the blank, tick the box, or circle the appropriate response when responding to the questions below.

PART 1) QUESTIONS ABOUT YOU:

Which dance genre do you perceive as your speciality?

Ballet Contemporary Both Other (please state) _____

Gender: Female Male

Current Age: _____ Years

Height: _____ Metres or _____ Feet _____ Inches

Weight: _____ Kg or _____ Stones

Do you smoke? Yes No Occasially

Over the last few weeks on average, how many hours have you slept per night?

_____ Hours

Ethnicity: (Please tick)

- White
- White – British
- White – Irish
- Other White Background
- Black British-Caribbean
- Black or Black-British African
- Other Black Background
- Asian or Asian British-Indian
- Asian or Asian British-Pakistani

Asian or Asian British-Bangladeshi

- Chinese
- Other Asian Background
- Mixed - White and Black Caribbean
- Mixed –White and Black African
- Mixed – White and Asian
- Other Mixed Background
- Other Ethnic Background
- Not Known

PART 2) DANCE EXPERIENCE:

What age did you initially started dancing? _____ Years

How long have you been at this school? _____ Years & _____ months

What year of study are you currently in? _____

Thinking back over the past few weeks, please indicate the average number of hours (per week) you have spent doing the following activities:

Dancing in class: _____ hours per week

Dancing in rehearsals: _____ hours per week

Dancing in performances: _____ hours per week

Dancing in your free time: _____ hours per week

Doing physical activities *apart from dance*: _____ hours per week

Doing dance work that is not physically active (e.g. study, choreography etc).

- In school _____ hours

- In your own time: _____ hours

Doing work (e.g. part-time job etc) that is not dance related: _____ hours

PART 3: INJURY STATUS

Previous Injuries: In the past 12 months, how many days in total have you missed classes, rehearsing or performing due to an injury?

_____ Days

Current Injury Status:

Are you currently injured? s o

What is the nature of your injury?

What is the severity of your injury (please circle one)?

Mild (treatment required, but still able to rehearse/perform as normal)

Moderate (treatment required, not able to rehearse/perform to full capacity)

Severe (treatment required, unable to rehearse/perform)

PART 4) INSTRUCTIONS

- Please answer all the questions as honestly and carefully as possible.
- There are no right or wrong answers so please answer as you truly feel.
- If anything is confusing, please ask for help and the questionnaire administrator will assist you.
- Please circle the appropriate answer to indicate how much you agree or disagree with each question or how much what is described is like you or not like you.

Example

If you answer not much like me for question 1, you put a circle around number 2.

If you answer completely like me for question 2, you put a circle around number 5.

Q		Not at all like me	Not much like me	Somewhat like me	Like me	Completely like me
1	I am still tired	1	2	3	4	5
2	The first thing I do is brush my teeth	1	2	3	4	5

PART 5: Questions

Thoughts about dance

Below are some reasons why people participate in dance. Using the scale provided, please indicate how true each of the following statements is for you. When deciding if this is one of the reasons why you participate, please think about all the reasons why you participate. There are no right or wrong answers, so do not spend too much time on any one question and please answer as honestly as you can.

Some items may appear similar but please respond to all the statements circling the appropriate number.

<u>I participate in dance...</u>	Not at all true		Some what True		Very True		
1. Because I enjoy it.	1	2	3	4	5	6	7

<u>I participate in dance...</u>	Not at all true			Some what True			Very True
2. Because it's a part of whom I am.	1	2	3	4	5	6	7
3. Because it's an opportunity to just be who I am.	1	2	3	4	5	6	7
4. Because I would feel ashamed if I quit.	1	2	3	4	5	6	7
5. But the reasons why are not clear to me anymore.	1	2	3	4	5	6	7
6. Because I would feel like a failure if I quit.	1	2	3	4	5	6	7
7. But I wonder what the point is.	1	2	3	4	5	6	7
8. Because dancing is an expression of who I am.	1	2	3	4	5	6	7
9. Because the benefits of dance are important to me.	1	2	3	4	5	6	7
10. Because if I don't other people will not be pleased with me.	1	2	3	4	5	6	7
11. Because I like it.	1	2	3	4	5	6	7
12. Because I feel obligated to continue.	1	2	3	4	5	6	7
13. But I question why I continue.	1	2	3	4	5	6	7
14. Because I feel pressure from other people to dance.	1	2	3	4	5	6	7
15. Because people push me to dance.	1	2	3	4	5	6	7
16. Because it's fun.	1	2	3	4	5	6	7
17. Because it teaches me self-discipline.	1	2	3	4	5	6	7
18. Because I would feel guilty if I quit.	1	2	3	4	5	6	7
19. Because I find it pleasurable.	1	2	3	4	5	6	7
20. Because I value the benefits of dance.	1	2	3	4	5	6	7
21. BUT I QUESTION WHY I AM PUTTING MYSELF THROUGH THIS.	1	2	3	4	5	6	7
22. Because it is a good way to learn things which could be useful to me in my life.	1	2	3	4	5	6	7
23. In order to satisfy people who want me to dance.	1	2	3	4	5	6	7

<u>I participate in dance...</u>	Not at all true	Some what True					Very True
24. Because it allows me to live in a way that is true to my values.	1	2	3	4	5	6	7

The following statements represent what the environment is has typically been like in your dance school over the past few weeks. Please indicate on the scale the degree to which you agree with the following statements:

Q	In this dance school...	Strongly disagree			Neutral			Strongly agree
1	I feel that my teachers provide me with choices and options.	1	2	3	4	5	6	7
2	I am able to be open with my teachers while engaged in dance.	1	2	3	4	5	6	7
3	My teachers make sure I really understand the goals of my dance involvement and what I need to do.	1	2	3	4	5	6	7
4	My teachers encourage me to ask questions.	1	2	3	4	5	6	7
5	My teachers answer my questions fully and carefully.	1	2	3	4	5	6	7
6	My teachers listen to how I would like to do things.	1	2	3	4	5	6	7
7	My teachers try to understand how I see things before suggesting a new way to do things.	1	2	3	4	5	6	7

Respond to the following statements considering your experiences as a dancer in this school over the past few weeks:

	Strongly disagree			Neutral			Strongly agree
I think I am pretty good at dance.	1	2	3	4	5	6	7

I am satisfied with my dancing.	1	2	3	4	5	6	7
After practicing a particular routine/movement for a while, I feel pretty competent.	1	2	3	4	5	6	7
I am pretty skilled at dance.	1	2	3	4	5	6	7
I can't dance very well.	1	2	3	4	5	6	7

The statements below allow you to think about how much the choices and decisions you make in this dance school or company are your own. Thinking back over the past few weeks, please indicate how much each statement is like you.

Q	In this dance school, I feel...	Not at all		Somewhat		Very much
1	That my choices are based on my true interests and values.	1	2	3	4	5
2	Free to do things my own way.	1	2	3	4	5
3	That my choices express my "true self"/ who I really am.	1	2	3	4	5

Please respond to each of the following statements by rating how you feel when participating in dance in this school over the past few weeks:

Q	In this dance school ...	Not at all true			Neutral			Very true
1	I feel free to express my ideas and opinions.	1	2	3	4	5	6	7
2	I feel free to do things my own way.	1	2	3	4	5	6	7

3	I feel I can give a lot of inputs to deciding what skills/movements/expressions I want to practice.	1	2	3	4	5	6	7
4	I have the opportunity to take part in deciding what choreography should be used.	1	2	3	4	5	6	7
5	I have a say in what happens in dance classes and rehearsals and I feel free to give my opinion.	1	2	3	4	5	6	7
6	I feel I have a lot of inputs in deciding how rehearsals and class are to be carried out.	1	2	3	4	5	6	7

Please circle the answer that best describes how you feel when participating in this dance school over the past few weeks:

Q	In this dance school I feel...	Strongly disagree		Neutral		Strongly agree
1	Supported.	1	2	3	4	5
2	Listened to.	1	2	3	4	5
3	Understood.	1	2	3	4	5
4	Valued.	1	2	3	4	5
5	Safe.	1	2	3	4	5

How you feel

Please respond honestly to the following items regarding how you are feeling at this present moment in time in relation to your participation in dance.

Q	At this present moment...	Almost never		Neutral		Almost always
1	I'm accomplishing many worthwhile things in dance.	1	2	3	4	5

2	I feel so tired from my dance training that I have trouble finding energy to do other things.	1	2	3	4	5
3	The effort I spend in dance would be better spent doing other things.	1	2	3	4	5
4	I feel overly tired from my dance participation.	1	2	3	4	5
5	I am not achieving much in dance.	1	2	3	4	5
6	I don't care as much about my dance performance as I used to.	1	2	3	4	5
7	I am not performing up to my ability in dance.	1	2	3	4	5
8	I feel "wiped out" (exhausted) from dance.	1	2	3	4	5
9	I am not into dance like I used to be.	1	2	3	4	5
10	I feel physically worn out from dance.	1	2	3	4	5
11	I feel less concerned about being successful in dance than I used to.	1	2	3	4	5
12	I am exhausted by the mental and physical demands of dance.	1	2	3	4	5
13	It seems that no matter what I do, I don't perform as well as I should.	1	2	3	4	5
14	I feel successful at dance.	1	2	3	4	5
15	I have negative feelings towards dance.	1	2	3	4	5

Please use the following response scale to indicate how true (or false) each item below is as a description of you. Respond to the items as you now feel even if you felt differently at some other time in your life.

	False	Mostly False	More False Than True	More True Than False	Mostly True	True
1. Overall, I have a lot to be proud of.	1	2	3	4	5	6
2. Overall, I am no good.	1	2	3	4	5	6
3. Most things I do, I do well.	1	2	3	4	5	6
4. Nothing I do ever seems to turn out right.	1	2	3	4	5	6

5. Overall, most things I do turn out well.	1	2	3	4	5	6
6. I don't have much to be proud of.	1	2	3	4	5	6
7. I can do things as well as most people.	1	2	3	4	5	6
8. I feel that my life is not very useful.	1	2	3	4	5	6
9. If I really try I can do almost anything I want to do.	1	2	3	4	5	6
10. Overall, I am a failure.	1	2	3	4	5	6

Have you experienced any of the following symptoms during the last few weeks?

	Not at all	1	2	3	4	5	6	7	Very much
1. Headaches.	1	2	3	4	5	6	7		
2. Stomach-ache/pain.	1	2	3	4	5	6	7		
3. Chest/heart pain.	1	2	3	4	5	6	7		
4. Runny and congested	1	2	3	4	5	6	7		
5. Faintness/dizziness.	1	2	3	4	5	6	7		
6. Stiff/sore muscles.	1	2	3	4	5	6	7		
7. Other, Please specify (<i>Or circle 1 if no other symptoms</i>): _____	1	2	3	4	5	6	7		

This scale consists of a number of words that describe different feelings and emotions. Read each item and then indicate to what extent you have felt this way over the past few weeks, using the scale provided.

I have generally felt...	Not at all	A Little	Moderately	Quite a bit	Extremely
1. Interested.	1	2	3	4	5
2. Distressed.	1	2	3	4	5
3. Excited.	1	2	3	4	5
4. Upset.	1	2	3	4	5
5. Strong.	1	2	3	4	5

6. Guilty.	1	2	3	4	5
7. Scared.	1	2	3	4	5
8. Hostile.	1	2	3	4	5
9. Enthusiastic.	1	2	3	4	5
10. Proud.	1	2	3	4	5
<hr/>					
11. Irritable.	1	2	3	4	5
12. Alert.	1	2	3	4	5
13. Ashamed.	1	2	3	4	5
14. Inspired.	1	2	3	4	5
15. Nervous.	1	2	3	4	5
<hr/>					
16. Determined.	1	2	3	4	5
17. Attentive.	1	2	3	4	5
18. Jittery.	1	2	3	4	5
19. Active.	1	2	3	4	5
20. Afraid.	1	2	3	4	5

END OF QUESTIONNAIRE. THANK YOU FOR YOUR
PARTICIPATION!

UNIVERSITY OF
BIRMINGHAM

Information Sheet for Dancers

Invitation to participate in a research study: Motivational processes and well-being among dancers

What is our study about?

The main aim of this study is to examine the interplay between characteristics of the dance environment, motivational processes, and indices of well-being in young elite dancers. In the long term, we hope that our research will help towards identifying how we can improve the health status of dancers, reduce injury and burnout and promote positive experiences from dance participation.

What will your participation involve?

If you agree to volunteer for our study, you will be asked to complete some questionnaires. Completing the questionnaires should take approximately 30 minutes of your time. All of your responses will be kept confidential. You may choose not to participate, refuse to answer any questions, or withdraw from the study at any time with no penalty or effect on your future involvement in dance. By participating in this study, you are also agreeing that your results may be used for scientific purposes, including publication in scientific and dance specific journals, so long as your anonymity is maintained. There are no known risks associated with participation in this research.

If you would like to any more information concerning this study, please do not hesitate to contact us. Thank you.

Eleanor Quested
Tel: 0121 414 4115 ext 58724
Email: EJQ665@bham.ac.uk

Prof. Joan L. Duda
Tel: 0121 414 2737
E-Mail: J.L.Duda@bham.ac.uk

This letter is yours to keep.

ОПРОСНИК

Дата: _____

Укажите Ваш индивидуальный номер:

******* Индивидуальный номер (ОЧЕНЬ ВАЖНО!):**

Напишите Ваш день рождения и через тире общее количество Ваших братьев и сестер, например, 12.05.1988-1(если Вы единственный ребенок в семье).

Ответьте здесь: день (____).месяц(____).год(____)-
количество(____)

Отвечая на следующие вопросы, Вам будет предложено а) вписать Ваш ответ, б) отметить его галочкой или в) обвести кружком.

Часть 1. Вопросы о Вас:

Какой вид танца Вы воспринимаете как Вашу специальность?

Балет

Современный танец

Оба

Другой _____

Пол: Мужской Женский

Возраст: _____ лет

Рост: _____ см

Вес: _____ кг

Вы курите? Да Нет Время от времени

Сколько часов в среднем Вы спите за ночь на протяжении нескольких последних недель? _____ часов

Часть 2. Танцевальный опыт:

В каком возрасте Вы начали танцевать? _____ лет

Как долго Вы танцуете в этом театре? _____ лет _____ месяцев

Укажите свое звание если оно имеется _____

Укажите стаж работы _____ год

За последние несколько недель сколько часов в неделю в среднем Вы уделяли следующим занятиям:

Танец на репетициях: _____ часов в неделю

Танец на представлениях: _____ часов в неделю

Танец в Ваше свободное время: _____ часов в неделю

Другие физические упражнения помимо танца: _____ часов в неделю

Занятия танцем, не относящиеся к физически активным (например, учеба, хореография, др.) _____ часов в неделю

Работа, не относящаяся к танцу (например, другая учеба, подработка) _____ часов в неделю

Часть 3. Травмы:

Перенесенные травмы: За последние 12 месяцев сколько дней (выступлений, репетиций) примерно Вы пропустили из-за травм? _____ дней

Ваше текущее состояние:

Травмированы ли Вы сейчас? Да Нет

Вид

травмы:

Степень серьезности травмы (отметьте кружком):

Легкая (необходимо лечение, но можно выступать, репетировать как обычно)

Средняя (необходимо лечение, невозможно выступить, репетировать в полную силу)

Тяжелая (необходимо лечение, невозможно выступить, репетировать)

Часть 4. Инструкции:

- Пожалуйста, ответьте на вопросы с максимальной честностью и вниманием.
- Это не тест, поэтому правильных и неправильных ответов не существует. Отвечайте то, что действительно чувствуете.
- Если что-то непонятно, то обратитесь за помощью к организатору.
- Обведите подходящий ответ на каждый вопрос, чтобы указать степень согласия или несогласия с утверждением, или насколько утверждение точно подходит для описания Вас.

Пример:

Если Ваш ответ на первый вопрос «Не похоже на меня»- обведите цифру 2.

Если Ваш ответ на второй вопрос «Совершенно, как я»- обведите цифру 5.

В	Когда я просыпаюсь утром...	Совсем не как я	Не похоже на меня	Похоже на меня	Как я	Совершенно как я
1	Я все еще чувствую усталость	1	2	3	4	5
2	Первый делом я чищу зубы	1	2	3	4	5

Часть 5. Вопросы:

1) Мысли о танце

Ниже перечислены некоторые причины для занятия танцем. Используя предоставленную шкалу, отметьте, насколько правдивы следующие утверждения для описания Вас. Отвечая о каждой отдельной причине, пожалуйста, думайте обо всех причинах Ваших занятий танцем в целом. Помните, что нет правильных и неправильных ответов - не раздумывайте долго над ответом и отвечайте с максимальной искренностью и честностью, так, как действительно чувствуете.

Некоторые утверждения могут показаться похожими, тем не менее, ответьте на все пункты, обводя подходящий номер.

<u>Я занимаюсь танцем...</u>	Нет, неправда			Отчасти правда			Да, правда
1. потому что это доставляет мне удовольствие.	1	2	3	4	5	6	7
2. потому что это часть меня.	1	2	3	4	5	6	7
3. потому что это возможность просто быть собой.	1	2	3	4	5	6	7
4. потому что мне будет стыдно, если я брошу.	1	2	3	4	5	6	7
5. но причины, почему я это делаю, перестали быть мне до конца понятными.	1	2	3	4	5	6	7
6. потому что если бы я бросил(а), то почувствовал(а) бы себя неудачником(цей).	1	2	3	4	5	6	7
7. но хотелось бы знать, какой в этом смысл.	1	2	3	4	5	6	7
8. потому что танец- это выражение того, кем я являюсь.	1	2	3	4	5	6	7
9. потому что польза от занятий танцем важна для меня.	1	2	3	4	5	6	7
10. потому что если я не буду, то другие люди не будут довольны мной.	1	2	3	4	5	6	7
11. потому что это мне нравится.	1	2	3	4	5	6	7
12. потому что я чувствую, что обязан(а) продолжать.	1	2	3	4	5	6	7
13. но спрашиваю себя, почему я продолжаю.	1	2	3	4	5	6	7
14. потому что я чувствую давление со стороны других, чтобы я это делал(а).	1	2	3	4	5	6	7
15. потому что люди заставляют меня танцевать.	1	2	3	4	5	6	7
16. потому что это весело.	1	2	3	4	5	6	7
17. потому что это учит меня самодисциплине.	1	2	3	4	5	6	7
18. потому что я бы чувствовал себя виноватым, если бы бросил.	1	2	3	4	5	6	7
19. потому что я нахожу это доставляющим удовольствие.	1	2	3	4	5	6	7
20. потому что я ценю пользу от занятий танцем.	1	2	3	4	5	6	7

<u>Я занимаюсь танцем...</u>	Нет, неправда			Отчасти правда			Да, правда
	1	2	3	4	5	6	7
21. но я спрашиваю себя «Зачем я заставляю себя проходить ЧЕРЕЗ ЭТО? ».	1	2	3	4	5	6	7
22. потому что это хороший способ научиться тому, что может пригодиться мне в жизни.	1	2	3	4	5	6	7
23. чтобы доставить удовольствие тем, кто хочет, чтобы я танцевал(а).	1	2	3	4	5	6	7
24. потому что это позволяет мне жить согласно моим ценностям.	1	2	3	4	5	6	7

2) Следующие утверждения представляют какова типичная обстановка в Вашем театре на протяжении нескольких прошедших недель. Отметьте на шкале степень согласия с утверждениями:

В	В этом театре ...	Шкала согласия						
		совершенно не согласен			Нечто среднее			Полностью согласен
1	Я чувствую, что мои хореографы (руководители) предоставляют мне разные варианты и возможность выбора.	1	2	3	4	5	6	7
2	Я могу быть откровенным (открытым) с моими хореографами на репетициях.	1	2	3	4	5	6	7
3	Мои хореографы проверяют, что я действительно понимаю свои цели на репетициях и то, что мне нужно делать.	1	2	3	4	5	6	7
4	Мои хореографы поощряют меня задавать вопросы.	1	2	3	4	5	6	7
5	Мои хореографы отвечают на мои вопросы полностью и внимательно.	1	2	3	4	5	6	7

6	Мои хореографы прислушиваются к моему мнению.	1	2	3	4	5	6	7
7	Мои хореографы стараются понять мою точку зрения, прежде чем предлагать новый способ.	1	2	3	4	5	6	7

Ответьте на следующие утверждения о Вашем опыте танцора в театре за последние несколько недель.

	Абсолютно не согласен			Нечто среднее			Полностью согласен
Я думаю, что я довольно хорошо танцую.	1	2	3	4	5	6	7
Я удовлетворен тем, как я танцую.	1	2	3	4	5	6	7
После отработки определенной техники/движения в течение некоторого времени, я чувствую себя достаточно опытным, знающим.	1	2	3	4	5	6	7
Я достаточно умелый в танце.	1	2	3	4	5	6	7
Я не очень хорошо танцую.	1	2	3	4	5	6	7

Нижеприведенные утверждения позволяют Вам подумать о том, в какой степени выбранные Вами альтернативы и принятые решения в данном театре являются Вашими собственными. Вспомните последние недели и отметьте, насколько каждое утверждение подходит Вам.

В	В этом театре, я чувствую...	Совсем нет		В некоторой степени		Очень сильно
1	что принятие мной решений основано на моих настоящих интересах и ценностях.	1	2	3	4	5

2	свободу исполнять по-своему.	1	2	3	4	5
3	что выбранные решения выражают мою сущность, то, кем я действительно являюсь.	1	2	3	4	5

Ответьте на каждое утверждение, отмечая то, как Вы чувствуете, когда занимаетесь танцем в театре в последние недели:

В	В этом театре ...	Совсем неверно			В некоторой степени			Абсолютно верно
1	я могу свободно выражать мои идеи и мнение.	1	2	3	4	5	6	7
2	я чувствую свободу делать так, как считаю подходящим.	1	2	3	4	5	6	7
3	я чувствую, что могу делать большой вклад в принятие решений, какие навыки, движения, экспрессию я хочу потренировать.	1	2	3	4	5	6	7
4	у меня есть возможность участвовать в принятии решений о том, какая хореография должна быть использована.	1	2	3	4	5	6	7
5	у меня есть право участвовать в обсуждении того, что происходит на репетициях, а также свобода выразить свое мнение.	1	2	3	4	5	6	7
6	я чувствую, что многие мои предложения оказываются большим вкладом в то, каким образом проводятся репетиции и представления.	1	2	3	4	5	6	7

Обведите ответ, который лучше описывает, как Вы чувствуете, занимаясь в этой школе танца в последние недели:

В	В этом театре я чувствую, что...	Абсолютно не согласен		Нечто среднее		Полностью согласен
1	меня поддерживают.	1	2	3	4	5

2	ко мне прислушиваются.	1	2	3	4	5
3	меня понимают.	1	2	3	4	5
4	меня ценят.	1	2	3	4	5
5	я в безопасности.	1	2	3	4	5

Самочувствие!

Ответьте честно на следующие утверждения о том, как **Вы** в настоящий момент воспринимаете Ваши занятия танцем.

В	В настоящий момент...	Почти никогда		Иногда		Почти всегда
1	я подвожу к завершению отработку много стоящего в танце.	1	2	3	4	5
2	я так устаю от танцевальных тренировок, что мне трудно найти в себе силы для занятия другими делами.	1	2	3	4	5
3	усилия, которые я прикладываю к танцам, могли бы с большим успехом быть использованы для занятия другими вещами.	1	2	3	4	5
4	я чувствую себя слишком уставшим от своих занятий танцем.	1	2	3	4	5
5	я не достигаю многого в танце в настоящий момент.	1	2	3	4	5
6	меня не волнует мое танцевальное исполнение так же сильно, как раньше.	1	2	3	4	5
7	я не выступаю сейчас в полную силу своих танцевальных возможностей.	1	2	3	4	5
8	я чувствую себя обессиленным из-за танцев.	1	2	3	4	5
9	я не так увлечен занятием танцем, как раньше.	1	2	3	4	5
10	я чувствую себя физически изнуренным (утомленным) танцем.	1	2	3	4	5

11	я чувствую, что стремление стать преуспевающим в танце беспокоит меня в меньшей степени, чем раньше.	1	2	3	4	5
12	я изнурен психическими и физическими требованиями танца.	1	2	3	4	5
13	мне кажется, что бы я ни делал, я не выступаю так хорошо, как бы мне следовало.	1	2	3	4	5
14	я чувствую себя успешным в танце.	1	2	3	4	5
15	у меня есть негативные чувства относительно танца.	1	2	3	4	5

Используйте следующую шкалу для оценки насколько верно (неверно) каждый пункт ниже описывает Вас. Ответьте на утверждения, исходя из того, как Вы сейчас чувствуете, даже если раньше Вы чувствовали по-другому.

	Неверно	В основном неверно	Скорее неверно, чем верно	Скорее верно, чем неверно	В основном верно	Верно
1. В целом, у меня есть много причин для гордости.	1	2	3	4	5	6
2. В целом, я нехорош.	1	2	3	4	5	6
3. Большинство того, что я делаю, я делаю хорошо.	1	2	3	4	5	6
4. Ничего из того, что я делал(а), кажется, не выходило правильным.	1	2	3	4	5	6
5. В целом, большинство из того, что я делаю, выходит хорошо.	1	2	3	4	5	6
6. Мне нечем особо гордиться.	1	2	3	4	5	6
7. Я могу делать вещи так же хорошо, как и большинство людей.	1	2	3	4	5	6
8. Мне кажется, что моя жизнь не приносит особенной пользы.	1	2	3	4	5	6
9. Если я очень постараюсь, я могу сделать почти все,	1	2	3	4	5	6

что захочу.						
10. В целом, я неудачник.	1	2	3	4	5	6

Вы испытывали какие-нибудь из следующих симптомов на протяжении нескольких последних недель?

	Совсем нет						Очень часто
7. Головные боли.	1	2	3	4	5	6	7
8. Боль в животе.	1	2	3	4	5	6	7
9. Боль в грудной клетке, сердце.	1	2	3	4	5	6	7
10. Заложенный, сопливый нос.	1	2	3	4	5	6	7
11. Головокружение.	1	2	3	4	5	6	7
12. Мышечная боль, одеревенелость	1	2	3	4	5	6	7
7. Другие (назовите и укажите или обведите 1, если другие симптомы отсутствуют)	1	2	3	4	5	6	7

Эта шкала состоит из различных чувств и эмоций. Прочитайте каждый пункт и отметьте, в какой степени Вы ощущали данное чувство в течение нескольких последних недель.

В общем, я чувствовал себя...	Совсем нет	Немного	Средне	Почти полностью	В высшей степени
1. Заинтересованным	1	2	3	4	5
2. Страдающим, несчастным	1	2	3	4	5
3. Возбужденным	1	2	3	4	5
4. Огорченным	1	2	3	4	5
5. Сильным	1	2	3	4	5
6. Виноватым	1	2	3	4	5
7. Испуганным	1	2	3	4	5
8. Недружелюбным	1	2	3	4	5
9. Увлеченным	1	2	3	4	5
10. Гордым	1	2	3	4	5
11. Раздражительным	1	2	3	4	5
12. Настороженным	1	2	3	4	5
13. Пристыженным	1	2	3	4	5
14. Вдохновленным	1	2	3	4	5
15. Нервным	1	2	3	4	5
16. Решительным	1	2	3	4	5
17. Внимательным	1	2	3	4	5
18. Напряженным, тревожным	1	2	3	4	5
19. Активным	1	2	3	4	5
20. Боязливым	1	2	3	4	5

КОНЕЦ ОПРОСНИКА. СПАСИБО ЗА ВАШЕ УЧАСТИЕ!

APPENDIX 5 : Informed Consent for the principals (in Russian)

Минск, 28.12.2007

ИНФОРМИРОВАННОЕ СОГЛАСИЕ НА УЧАСТИЕ Социальная мотивация в танцевальном исследовательском проекте

Социальная мотивация в танцевальном исследовательском проекте проводится на Факультете Спортивных Наук университета Ювяскюля в Финляндии профессором Тару Линтунен. Главная цель исследования изучить мотивацию и самовосприятие танцоров в Беларуси, Финляндии и Великобритании, а также адаптация шкал для измерения мотивации. Участие сводится к заполнению опросников.

Танцоры приглашаются к участию в исследовании на добровольной основе. Все результаты опросников конфиденциальны и анонимны. Индивидуальные результаты будут недоступны для других участников либо для кого-либо другого. Однако конечные результаты по белорусским тансорам в целом будут предоставлены директору Национального Академического Большого театра балета Республики Беларусь для использования в качестве средства для улучшения среды обучения и его эффективности.

Данная работа проводится Светланой Комаровой в качестве диссертации в магистратуре на факультете спортивных наук университета Ювяскюля, Финляндия. Исследование призвано улучшить понимание роли социальной поддержки, определить фактор, который может содействовать самоопределяющим предписаниям для занятия танцем и здоровому самовосприятию танцоров для их благоприятного самочувствия.

За большей информацией обращайтесь к:

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Проект по исследованию социальной мотивации в танце может быть проведен среди танцоров Национального Академического Большого театра балета Республики Беларусь

Директор Национального Академического Большого театра балета Республики Беларусь В.Н.Елизарьев

МЕЖДУНАРОДНЫЙ ТАНЦЕВАЛЬНЫЙ ПРОЕКТ
Университет Бирмингема, Университет Ювяскюля

UNIVERSITY OF
BIRMINGHAM



Информация о проекте

Приглашение к участию в исследовательском проекте: Мотивационные процессы и самочувствие танцоров

О чем проект?

Научный проект, посвященный социальной мотивации в танцевальном искусстве, проводится на Факультете Спортивных Наук университета Ювяскюля, Финляндия, профессором Тару Линтунен в сотрудничестве с Британским университетом в Бирмингеме. Основной целью проекта является изучение взаимосвязи между характеристиками танцевальной среды, мотивационных процессов и показателями самочувствия танцоров элитных танцевальных групп различных странах мира. В исследовании уже принимают участие высококвалифицированные балетные танцоры национальных трупп и танцевальных школ Финляндии, Беларуси, Великобритании, Испании, Северной Америки.

В конечном итоге, данное исследование направлено на выявление основополагающих факторов, которые отвечают за состояние здоровья танцоров, снижают риск травматизма и профессионального выгорания и способствуют дальнейшему развитию профессиональных качеств, необходимых для занятия данной деятельностью. Мы интересуемся условиями, создающими для танцоров возможность получать удовольствие от занятий танцем, содействовать улучшению творческого процесса, что сказывается как на повышении качества исполнения и более благоприятной атмосфере в коллективе, так и на хорошем психологическом и физическом здоровье.

В чем заключается участие?

Участникам проекта будет предложено письменно ответить на ряд вопросов, связанных с танцевальной деятельностью, что занимает около получаса. Общие результаты исследования будут опубликованы в научно-психологических и специализирующихся на танце журналах, при условии **соблюдения полной конфиденциальности и анонимности всех полученных ответов**. Участие является добровольным и абсолютно безопасным.

Приглашаем Вас к сотрудничеству для получения российских данных, которые помогут улучшить условия и качество Вашей работы и творчества, а также внесут вклад в современное мировое искусство.

За более подробной информацией, связанной с данным проектом, обращайтесь к нам.

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Благодарим Вас!

Бланк согласия на участие для танцоров

Университет Бирмингема, Университет Ювяскюля

UNIVERSITY OF
BIRMINGHAM



Мотивационные процессы и самочувствие танцоров

******* Индивидуальный номер (ОЧЕНЬ ВАЖНО!):**

Напишите Ваш день рождения и через тире общее количество Ваших братьев и сестер, например, 12.05.1988-1 (если Вы единственный ребенок в семье).

Ответьте здесь: день (____).месяц(____).год(____)-количество(____)

Я _____ прочитал и понял сопровождающую информацию. Я согласен принять участие в исследовании, зная о своей возможности отказаться от участия в любой момент исследования без каких-либо негативных последствий в отношении меня. Все вопросы были предоставлены для ответа в приятных для меня условиях.

Подпись танцора _____

Дата _____

В присутствии _____