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A phenomenological approach to psychological treatment for the multidisciplinary care of chronic back pain

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Abstract

Purpose. Evidence-based guidelines recommend multidisciplinary treatment of chronic back pain (CBP), making reference to the bio-psycho-social model and to recent theories of emotions. This paper aims at providing a systematic description of a psychological intervention based on a phenomenological approach within the multidisciplinary treatment of CBP.

Methods. Starting form the theory of disfunction in CBP and the theory of treatment, we describe here the theoretical framework and process components of a short-term, emotionally focused psychological intervention, to explain the choice we made to use a phenomenological approach to illness and pain, in terms of group context into the patients' rehabilitation care pathway.

Conclusions. A phenomenological approach within the multidisciplinary treatment of CBP aims at the recognition of the subjective experience of illness, emotions associated to the illness and individual ways to communicate pain, with the ultimate intended outcome of relieving pain-related psychological distress and improving pain management. A systematic description of this approach may facilitate its integration in clinical practice.

KEY WORDS: chronic pain; multidisciplinary treatment, phenomenological model, theoretical study.

Introduction

Chronic back pain (CBP) is a highly disabling condition [1], and most recommended physical therapy treatments provide limited evidence of effectiveness [2; 3; 4]. It is well known that psychosocial factors are strong predictors for developing and persisting CBP [5]. According to the bio-psycho-social model, CBP is described as a dynamic interaction between biological, psychological and social factors [6; 7]. Based on this model, it has been suggested that integrative care plans may achieve better outcomes than monodisciplinary care, especially if delivered by a collaborative, integrated team approach, addressing the medical, physical, professional and behavioural components as well as the cognitive and emotional components of CBP [8; 9]. The multidisciplinary approach provides such integrated treatment options by a team including at least three professionals with different clinical background such as physician, physiotherapist, and psychologist [10]. A systematic review of rehabilitation for chronic low back pain shows that such treatment provides moderate evidence to be effective at reducing pain in the short term, compared to either observation or to other active treatments [11].

Although most evidence-based guidelines recommend a multidisciplinary intervention for the treatment of CBP [12], this approach is not widely diffused in clinical practice[13]. It has been suggested that the intrinsic complexity of a multidisciplinary approach, incorporating the knowledge and skills of various health professionals, is a deterrent to its application in clinical practice [14]. In particular, it is possible that clinicians who provide medical and physical care for back pain may be not sufficiently informed as to the content and assumptions of the intervention delivered by the psychologist to address such option: therefore, providing a systematic description of the content and the theoretical underpinnings of such treatment may facilitate its reproducibility in different clinical settings and its integration to clinical practice [15].

The psychological interventions proposed for the multidisciplinary treatment of CBP have very different theoretical frameworks and applications. Most studies have been focused on a cognitive behavioural approach, delivered either by a psychologist or by other health professionals [16]. However recently debated theories of emotion, based also on new neurobiological insight on the connections between emotions, pain and health, support the development of psychological therapy approaches addressing the emotional and relational components of the illness experience as a key pathway to change and improve health related quality of life [17]. In this paper, we provide a systematic description of a psychological intervention into a conceptual framework addressing relevant areas of treatment theory and process [15]. The intervention is based on the phenomenological model, aimed at the recognition of the existential individual experience of pain, the emotions associated with pain and pain communication [18; 19].

METHOD

The multidisciplinary approach to CBP was proposed to be implemented in an outpatient rehabilitation department. The first step to provide it was to form a Multidisciplinary Rehabilitation Study Group (MRSG), including all health professions of the department: physiotherapists, psychologists, and physiatrists, who adhered on a voluntary basis. The care already provided by the department included individual exercise programs, manual treatment and physical therapy [20]. As to the psychological treatment component, all health professionals had been trained to address cognitive and behavioral components of CBP by providing reassurance and ergonomics education at home and in different occupational settings during treatment. Further, all CBP patients were given on admission a booklet with evidence based, standardized educational information on basic back anatomy and biomechanics, reassurance as to the benign character of common back pain, optimal postures, ergonomics and the advice to stay active, and were encouraged to discuss the booklet with the physical therapists (PT) and physiatrists. Finally specific training and home practice of impaired movements and abilities was part of the physical therapy [21; 22].

The psychological intervention was proposed and outlined by the MRSG. It was further elaborated and defined by the psychologists of the Group, starting form the theory of disfunction in CBP and the theory of treatment. Furthermore, before its implementation into the care pathway of clinical practise, it was given a systematic description in terms of output domain, process domain, input domain, context domain and guiding principles.

Theory of dysfunction in chronic back pain

Chronic pain may be defined as an integrated sensory and emotional experience profoundly linked to overall sense of well/ill being [23]. Based on neuroimaging and electrophysiological techniques, the prefrontal cortex has been identified as a control center for cognitive processing of the pain experience and the assignment of emotional meaning to with chronic pain and with associated fear and anxiety [24]. From an epidemiological perspective, psychosocial factors are the strongest predictors for developing chronic pain after an acute episode of back pain, including emotional distress, perceived locus of control, as well as education, appraisals, beliefs, expectations, social support, work satisfaction and financial status [5]. Feelings of anxiety and depression, feelings of material and existential loss, frustration anger and resentment, are the negative emotions most frequently associated to chronic back pain [25; 26].

The bio-psycho-social model is the rationale for proposing any psychological intervention in the multidisciplinary treatment of chronic low back pain [27; 7]. According to this model, chronic pain develops as a dynamic interaction between biological, psychological and social factors: therefore, prevention and treatment of chronic pain should address psychosocial as well as clinical factors by a multidimensional treatment approach [6]. Guidelines are in agreement as far as recommending a multidisciplinary approach to chronic low back pain, but the content of the psychological intervention is rarely specified [28]. Many psychological approaches have been proposed for the treatment of CBP, including psychophysiological, psychodynamic, behavioral and cognitive-behavioral treatments [4]. Scientific evidence has been provided for cognitive behavioural interventions, addressing coping strategies and perceived self-efficacy, and delivered by a variety of health care professionals [16].

These cognitive-behavioural approach emphasizes the cognitive processes, rather than the emotional and relational components of the CBP experience. Consensus has been reached over considering emotions as typically conscious phenomena, involving more pervasive bodily manifestations than other conscious states. According to modern theories, emotions contribute crucially to defining ends and priorities, and they are a determinant key in the social life regulation and in the overall quality of life, because they tell what a person needs [29]. The ability to recognize emotions, based on attachment theories [30] and infant research [31; 32] starts in the reciprocal emotional regulation between infant and mother and it is considered the first ground to access the dimension of intersubjectivity, that is the process of sharing of mental activity between subjects during any communicative act in the lifetime [32]. This first intersubjective dimension would promote the development of the first ability to express, understand and regulate emotions.

Specifically focused research emphasizes the role of the neurobiologically ancient emotional systems over the neocortical cognitive processes in psychological development and well being [33]. Neurobiological studies model provide new insight on the relationship between emotions, stress and health [34]. Preliminary evidence supports the idea that a disregulated emotional expression, either repressed or extremely expressed, is associated with a higher risk of adverse health events [35]. Thus, emotionally focused therapy approaches address awareness and understanding emotional processes. Emotional awareness is believed to provide a pathway to change, towards an improved apprehension of self and situations, and towards a better emotional regulation and a more adaptive behavior [36; 37].

In our integrated approach to CBP, we chose to complement the basic elements of cognitive behavioral treatment, already provided by all our health professionals to patients with CBP (reassurance, encouragement to be-

ing active, retraining of lost abilities, and discouragement of false health beliefs), with an emotionally focused intervention, provided by a trained psychologist, addressing the meaning of pain for the chronic patient, and the emotional and relational components of the pain experience [19; 17].

Theory of treatment

The proposed intervention is an accelerated, emotionally focused program based on a phenomenological approach to clinical psychology. The conceptual framework of this approach makes reference to the model described by the psychoanalyst Merleau Ponty [19].

Phenomenology is a doctrine first referred to by Hegel to indicate all the manifestations of the spirit in consciousness, history and thought; in the phenomenological model, as further developed by Husserl, man is seen as a Body that exists, senses, perceives and expresses and defines self in relation to the World, overcoming the Cartesian dualism between Mind and Body. For Merleau Ponty, man is composed of a Body, a World and a Story. The Body is exposed to the sensing and emotion-based perceptual elements offered by the World. The Body expresses itself in the experience of being in contact with the outside, in the physiological sensations and emotions. The temporal dimension of the Body is the present: perception is in the present, and the Body exists and perceives "here and now". So, the Body is not just a "thing" but it is also the necessary condition of experience, the element that allows us to perceive through a perspective, where the perspective is the condition chance for the object to appear. As to the Story, it is through narration that we create and keep memory of the past, and define fears, designs and expectations for the future. But memory and expectations exist only by comparison with the other-than-self. The term World relates to the other-than-self dimension, the Other. Projective identification, that is the recognition in the other, is considered essential to our very existence. Even the Story was created to be told to the Other; without the Other even the temporal dimensions of past and future lose significance. From the clinical point of view, in the illness experience, as in chronic pain, feelings undergo changes: the Body perceptions alter, the Story may be missing or distorted, and the experience of the World may be reduced or prevented. Unrecognized emotion associated to a chronic painful experience makes sense uncertain, as the painful experience may be amplified to restrain the patient in a dimension of eternal present, pervaded by bodily pain and impairment, with no grounds in the past e no hope for the future. Attempting to make sense of the experience reintroduces the dimensions of past and future, breaking the insistence of emotions in a fixed present. So, rather than name or conceptualize their emotions related to pain, it is important that patients learn to acknowledge them, to allow a distance from the physical sensation and an opening to the production of symbol, that may alleviate the stress associated with physical pain [17].

Output domain

Specification of the output domain was guided by the question "What are the intended outcomes of the treatment program?" [15]

A relevant issue in psychological research is the definition of outcome evaluations that are based on the underlying theory the therapy provides [38]. The proposed intervention addresses the recognition of emotions related to the patient experiences, lived phenomenologically through the Body in his/her being "here and now". As any emotionally focused therapy, it is aimed at arousing the patients' feelings and self-awareness, to promote symbolizing processes and reflection as to eventually change narratives: "Life is a process of making sense of our feelings, and the aim of therapy is to help patients make sense of their feelings" [39]. The goal of the psychological intervention is to activate the innately adaptive potential of emotions, in order to help clients to change problematic emotional states or unwanted self-experiences connected to their pain or illness [39]. Emotions can prepare and guide the clients in their rehabilitation care pathway to take action towards meeting their needs. Furthermore, the psychological intervention improves patients' awareness and ability to tolerate and regulate illness-related emotions, with the ultimate intended outcome of alleviating pain-related psychological

distress and facilitating pain tolerance and management. This in turn was expected to improve overall treatment outcome, in terms of pain relief and functional recovery.

Process domain

Specification of the process domain in guided by the question "What is the intervening process that is expected to mediate between the treatment components and the outcomes of the treatment program?"

The phenomenological approach is focused on the ability to express, recognize and share CBP related emotions and feelings. The process mediating between treatment components and outcome was the arousal and improved awareness of emotion, searched by a phenomenological approach. According to this model, a true and complete understanding of an illness can be derived from the bedrock of experience, in emotions, actions and perceptions of things and relationships [19]. Therefore, an assumption underlying our approach is that, in order to improve rehabilitation efficacy, the quality/ of a illness and the secondary gains and of the pain and the way pain is communicated must be understood in subjective terms. In synthesis, our phenomenological approach aims at providing 1) An increase in the ability of the recognition of the subjective experience of illness (SUBJECTIVE PERCEPTION AREA) – what is my experience of being ill?; 2) an increase of the ability of recognition of the emotions associated to the illness – how do I feel about being ill? - and of the pain related secondary gains; 3) the recognition of patient's own way to communicate pain (PERCEIVED EMOTIONS AND RELATIOSHIP AREA).

The very possibility of emotional expression and sharing in a safe, empathic may provide psychological relief and promote emotional awareness; further, group dynamics are expected to facilitate expression, recognition and awareness even of those emotions previously defensively excluded or denied, addressing factors that may contribute to resistance to treatment, such as catastrophism, hopelessness, unrecognized search of secondary gains, and feeling of social isolation [36; 17]. The process of sharing of mental activity between participants in an intersubjective dimension is believed to empower patients' inner healing emotional abilities, to allow reflection on emotional experience and behaviour, and facilitate transformation of maladaptive emotions and change of intersubjective communication [32].

Input domain

The question addressed is: How does the phenomenological intervention address emotional, relational and communicative awareness in the group program?
This group intervention is carried on by three 2-hour sessions, once a week, generally during the same period while the patients are being treated with physiotherapy. In each session the psychologist introduces one of the three areas defined above and promotes group discussion, conveying the expression of psychological distress into a dedicated, safe and empathic setting.

As to the first area, the recognition of the subjective experience of illness,s introduced in the first session, the following question is proposed to the group: What is the experience of being ill? How do I view the "things" that are? The therapist encourages the patients to describe their experiences in detail, express their sense of their experience in fresh language.

With regard to the second area, the recognition of both the emotions associated to the illness and the secondary benefits of the illness, patients are encouraged to describe how they feel about their illness and stimulated distinguish their primary, immediately felt emotions, from their secondary/reactive emotions and from their instrumental emotions to effect or to impact the other [39]. An illness may serve different functions, and patients might engage in different way to communicate pain according to to the function the illness serves, for a example a secondary gain. The attention received, monetary compensation for disability, or just the need to deny

the original cause of the pain, can greatly contribute to or impair healing process [40]. Some patients might engage in exaggerated pain expression in order to maximize proximity, or to solicit assistance or empathic responses from others in their social environment, often without fully realizing what they are doing and why [40; 41]. In order to avoid this, it is important to improve the ability to recognize the use patients do of pain.

With regard to the third area, the recognition of the way of communicating pain, the therapist encourages the patients to describe how they communicate their illness and how their illness is brought into and affects their relationships. The patient is stimulated to distinguish pain behaviors with a primary communicative function and those with a primary pain management function: facial displays or vocalizations are likely to have a primary communicative function, because they can communicate distress to observers, but these behaviors do not have an obvious direct pain management function – on the other hand, behaviors such as rubbing or holding can serve a pain management function by protecting the affected body area, or by minimizing pain through mechanisms associated with tactile stimulation or increased circulation [42].

The role of the psychologist goes beyond providing empathic understanding and reassurance of unconditioned acceptance to each participant [43], to engage a caring relationship with patients [36; 37]. Thus, the group sessions become a safe environment to allows arousal, awareness, discussion and reflection on emotions, however frightful and painful they may be. The therapist engages with emotions that are lived during the session, promoting change in emotion perception and emotionally directed behaviour. In the group, the psychologist facilitates feedback, participation, and observation, to encourage problem sharing and communication.

Context domain

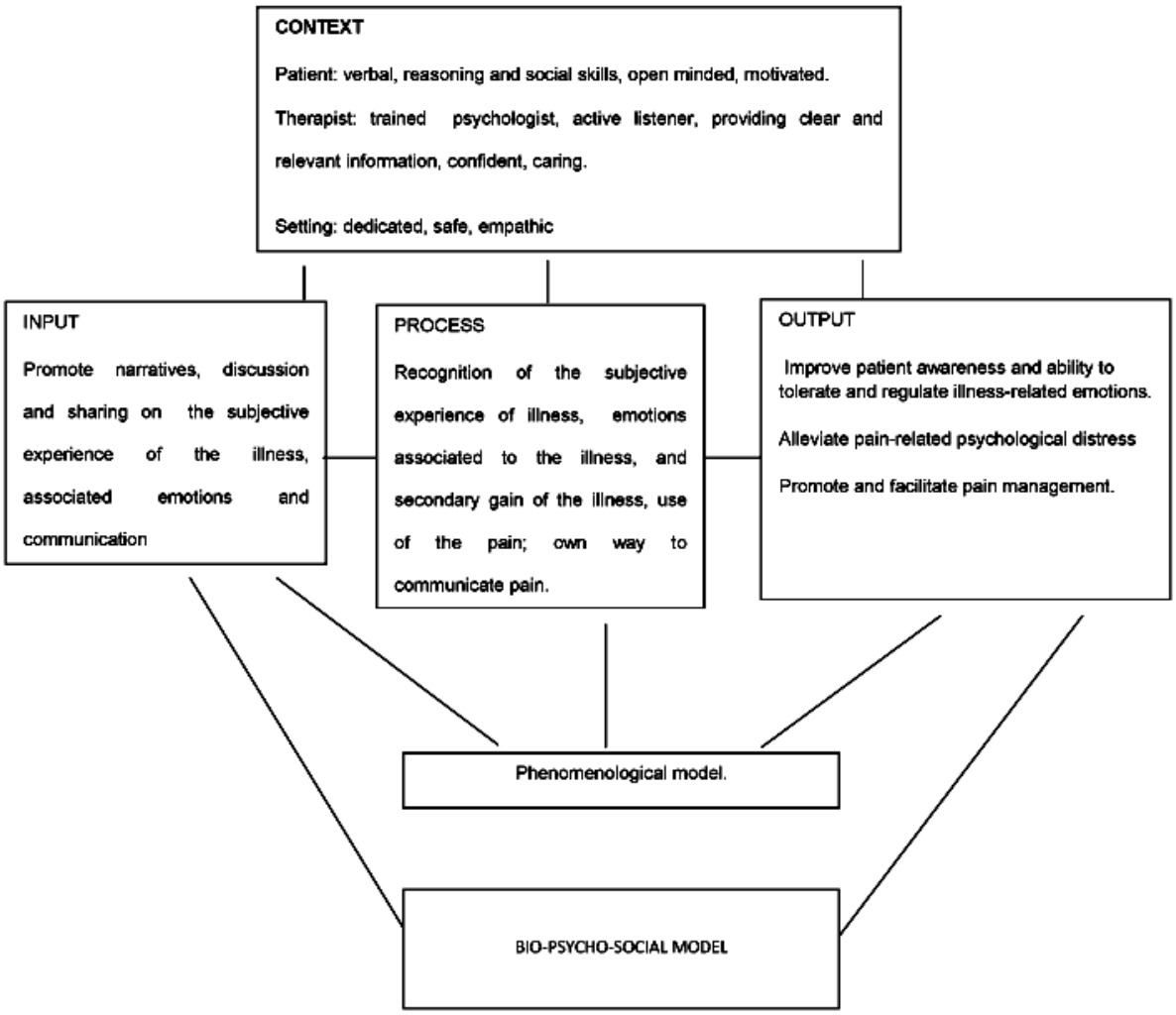
The context domain addresses the question: "What are the conditions for optimal application of our treatment program?" The following competencies have been recognized to be are particularly relevant for those delivering psychosocial interventions for patients with back pain: being an active listener, providing clear and relevant information, ability of empowering the patients, being confident but caring [22]. In the phenomenological approach, only a trained psychologist can deliver the intervention.
The group process is essential for our integrated phenomenological approach, as the process of sharing of mental activity between participants is an essential component of our process domain. The healing power of narration is enhanced by the group experience creating a safe container of emotional events, promoting the experience of being connected to oneself and the self of another, and providing the intersubjectivity dimension that allows individual and collective development [32]. To allow sharing of contributions, influences and activities within the group, participants are required verbal and reasoning skills and some degree of social skills, and to be open minded and willing to explore this treatment approach [15].

Guiding principles

Our intervention addresses emotional processes and how they may change by the direct experience of emotion in the group sessions [36; 37; 32]. The psychotherapist promotes interaction and sharing, and motivation for personal and social transformation towards a more adaptive feeling and illness behaviour [37].

A graphic synthesis of the intervention following the descriptive approach proposed by Siemonsma et al. [15] is shown in figure 1.

Figure 1. Domains and guiding principles of the intervention.



DISCUSSION

In this study we provided a systematic description of content and theoretical framework of a phenomenological approach integrated, as a psychological intervention, to education and physiotherapy for the multidisciplinary treatment of chronic spinal pain [15; 8; 9].

Trough the phenomenological approach to CBP we want to understand and explore the way a person gives meaning to pain and expresses it in relationships, considering the pain symptom within the existential individual experience [19]. Some healthcare providers regard their patients' emotions and interpersonal relationships as dimensions outside their area of interest, but ignoring or minimizing that the impact of such components on chronic pain may actually impair effective pain management [44]. On the contrary, many Authors claim that emotional support can be a key ingredient of a successful treatment plan for any chronic pain condition, while inadequate or inappropriate interventions in this field may compromise treatment outcome [36]. Indeed, chronic physical pain may affect mood, self-esteem and behaviors in ways that may challenge the establishment of a therapeutic alliance [45]. Supported by previous research and recommendations [22], we chose to deliver the

basic elements of a cognitive behavioral approach, emphasizing the thinking process and addressing false beliefs and miscognitions to improve health behavior, by all health professionals of the team after specific training. On the opposite, adequate dealing of CBP related emotions, while providing diagnosis or physical treatment, is a more specialistic task that can be performed by psychologists in a specifically dedicated setting [17]. Without denying the importance of the cognitive behavioural aspects of CBP, that are reinforced by the psychologist as by all other health providers in the department, our method focuses the psychological intervention on the emotional and relational components that are often involved in the bio-psycho-social genesis of chronic pain and that rarely receive adequate attention in clinical practice.

As to the process expected to mediate between the input and the intended outcomes of the phenomenological model [19], we hypothesized that patients would appreciate the opportunity of talking about themselves and their pain, of communicating their pain, along with their personal problems and fears, and the opportunity of sharing their experience with fellow patients with similar problems in a dedicated setting. Thank to the phenomenological approach, each group session would be dedicated to one specific issue: the recognition of the subjective experience of illness; of the emotions associated to the illness and of pain related secondary gains; and the recognition of patient's own individual way to communicate pain [19]. Multidimensional care of patients with chronic pain requires that the biological, psychological and social factors should all be addressed simultaneously, thus, psychological treatment should be integrated with physical therapy and medication, to address all components of the experience of musculoskeletal pain [16]. This explains the short format of our proposed intervention, that has been elaborated as a support of patients during their rehabilitation treatment. Of course, we are well aware that some patients may require a longer, individual treatment to make sense of their experience and find their own strategies and reasons to face the fatigue and pain and move on [46]. However, the group context, through sharing narratives and emotions, allows expression and exploration by all participants, legitimizing their thoughts and emotions [32]. The awareness and sharing of emotion, catalyzed by the group dynamic, is believed to promote the experience of a deeper connection within oneself as with others in the group [36]. Such process has been shown to stimulate self-acceptance, confidence and communication, to develop motivation, increase pain tolerance, improving pain coping, relationships and overall quality of life [39]. Individuals react differently to stress: some of them express their emotions openly, clearly stating their anxiety, depression and frustration, while others have more difficulties with getting in touch with and expressing their emotions and feelings. Our assumption is that it is important to listen and "give voice" to these patients, giving them the opportunity to express their points of view and to be listened. Sharing and addressing their suffering is in our method the first step to adequate care [46].

As to our context premises, we addressed those psychologist's characteristic that had been considered relevant by lessons learned in previous trials on psychosocial interventions for low back pain [22], such as active listening, clarity and relevance of provided information, as well as the quality of relationships developed among each group participants and between each of them and the psychologist. Further, we emphasized the psychologist's ability to be empathic with patients' emotions and feelings, in order to help them dealing with CBP, rather than surrender to hopelessness [47]. Indeed the purpose of our intervention is not to reduce the painful symptoms themselves, but rather to improve patients' ability to tolerate and regulate illness-related emotions, leading to a different appraisal of the illness and to more effective coping strategies that impact towards the improvement of the symptom. Thank to a changed emotional and relational perspective, the patients are assumed to experience overall pain relief and learn to manage their back-pain related disability [48]. Further research is being carried on to verify the successful implementation of the proposed intervention approach, and to verify the functional outcome of the proposed multidisciplinary treatment.

CONCLUSIONS

The systematic description of the theoretical framework and content of a short-term, emotionally focused psychological intervention, based on a phenomenological model has been provided, to integrate multidisciplinary

care of CBP. Further research is being carried on to verify the successful implementation of the proposed approach, and to verify the functional outcome of the proposed multidisciplinary treatment.

IMPLICATIONS FOR REHABILITATION

Multidisciplinary treatment including a psychological intervention is recommended for Chronic Back Pain patients.

A short-term, emotionally focused psychological intervention, based on a phenomenological model, for chronic back pain patients receiving physiotherapy and education has been described by a conceptual analysis of theory and content.
A systematic description of of the psychological intervention is aimed at facilitating its integration to evidence-based recommended multidisciplinary care.

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