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## Homework assignment: the use of instructions in psychological treatments and therapeutic compliance

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### Abstract

The use of homework in psychological treatments is frequently used by psychologists. However, there is a gap in research that demonstrates the effect of different variables in therapeutic compliance. One of the factors most frequently related with compliance is the therapeutic interaction when therapist instructs the client but little is known about how this interaction influences the compliance. The aim of the present work is to provide a solid theoretical framework about the study of instructions in psychological treatments as way of assigning homework and their relationship with the therapeutic compliance and effectiveness. Ultimately, in the long term we pretend to study through empirical studies how the therapeutic interaction in assigning homework influences the therapeutic compliance.

The majority of the publications about therapeutic compliance and therapeutic interaction in homework assignment suggest that there is a relationship between them, but there are not studies that show specifically how it is. Therefore, there is a need of studying more systematically the role of the therapeutic interaction when therapist assigns homework

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## 1. Homework assignment in psychological treatments

Cognitive-behavioral treatments (CBT) have demonstrated their effectiveness repeatedly in different clinical problems (see for example: Deacon & Abramowitz, 2004). Within this theoretical model of understanding psychological problems, the use of homework is an undeniable feature that helps the client to put the new behaviors learnt in the clinical setting into practice (Beck *et al.* 1979) and allows the client to acquire new and more adaptive behavioral repertoires through the feedback provided by the therapist. This fact has contributed to understand the psychological treatment and concretely, the therapeutic interaction as a shaping process (Froján, Montaña, Calero & Ruiz, 2010).

Within the homework, the tasks most frequently used in CBT are relaxation, putting social skills into practice, cover and manifest behavior modification, schedule of activities and recordings of self-observation (Kazantzis, Pachana & Secker, 2003). However, although in other theoretical models the use of homework could not be as systematic as in CBT, some researchers mentioned that clients could extract their own homework from the speech of the psychologist (Kornblith, Rehm, O'Hara & Lamparski, 1983) and put them into practice. For this reason, the use of homework in therapy has been considered as a common factor in every psychological intervention (Kazantzis & Ronan, 2006), as the therapeutic relationship is (Lambert & Barley, 2001).

In a study carried out in New Zealand by Kazantzis & Deane (1999), 221 therapists reported the frequent use of homework and the importance of their use in therapeutic process. Concretely the 98% of the therapists considered the use of homework as an important element of the therapy, which is consistent with the finding of Norcross, Alford & DeMichele (1992) who mentioned that therapists consider the homework as one of the most important areas in psychotherapy.

However, findings also show that the verbalizations for assigning homework are not specific enough because the therapists do not use to specify the location, or specify how long the client has to put the assigned task into practice (Kazantzis & Deane, 1999). These results are consistent with the finding of Shelton & Levy (1981), who mentioned that therapists should specify when, where, how long and how many times the clients have to put into practice the task before the next session.

This lack of systematic practice in assigning homework has motivated some authors to emphasize the importance of between session periods as excellent chances to extrapolate the skills learnt by clients. It has also motivated them to make the effort of studying the effect of the 'non-specification' of homework assignment on therapeutic results (Kazantzis & Deane, 1999).

As a result, many authors have created some therapeutic guidelines to help psychologists in their clinical practice (see for example: Kazantzis & Deane, 1999) based on psychologist's behaviors during clinical sessions that are supposedly related with effectiveness. However, as we previously said, this relationship has not been empirically proved through rigorous studies that show its effect on the results of the intervention.

We share the point of view of Dattilio (2002) about homework assignment: it becomes the therapeutic process into a 24 hours experience and helps to keep alive the therapeutic session during intra-sessions periods. From our point of view, the use of homework is also important because it contributes to conceptualize the psychological problems as a result of the client's behavior against the medical-psychiatrist viewpoint, in which psychological problems are considered as a result of the alteration of biological variables. Therefore, our approach to psychological problems considers that the client has an active role within the therapy and that the clinical change will only take place through the change of his behaviors.

Thereby, we agree with the conclusion of Kazantzis & Deane (1999): in our discipline it is necessary to research more rigorously about the role of homework in therapy results, but not only in relation with the effect of the use (or not use) of homework on the effectiveness of the treatment, but also about the relationship between the way of assigning and

reviewing homework by therapists (how systematic) and the compliance of the tasks, and consequently the effect on the effectiveness of the treatment.

## 2. Defining homework assignment as instructions

One of the aims of the psychological science should be to apply the knowledge obtained through research to the clinical practice (Marchena, Calero & Galván, 2013). In other words, for the consolidation of Psychology as a science it is necessary to establish a link between research and theoretical frameworks, and clinical practice. For this reason, the collaboration between researchers and clinicians becomes an important way of advancing in psychological science. This is the ultimate goal of our research line.

Regarding the homework in therapy, it is important to take into account what the clinical psychologists do when they assign homework during psychological intervention. Given that psychological treatments are based in verbal interactions, we need to take into account the studies carried out in experimental psychology and concretely, in language and learning processes.

In the literature about task assignments in experimental psychology, the term *instruction* is used to define the act of giving information to someone about what he has to do and, sometimes, what he will get for doing it, in other words, the contingencies (see for example: Baron & Galizio, 1983). Furthermore, this term is used interchangeably with the term *rule*, which is sometimes confusing.

Skinner in 1957 explained the language as an operant response, which could be explained through the contextual contingencies (Skinner, 1957). In this aspect, the author mentioned the rules-governed behavior concept, which refers to any verbal stimulus that can modify or establish a function of a contingency, and therefore, a discriminative stimulus that announces to the listener the existence of a consequence to his behavior previously to the direct experience. Hence, a rule becomes a verbal stimulus with the capacity to control the non-verbal behavior, for example, the manifest behavior.

In this sense, the instructions could be considered as a form of controlling the behavior in which the therapist (speaker) assigns a task that the client (listener) has to comply without having been in contact with the contingencies. Namely, this behavior can be considered a rule-governed behavior. Therefore, we could consider the term *mand* like the most suitable term used by Skinner, which is understood like a verbal behavior that specifies to the listener a response that is going to be reinforced by the speaker.

Although in the literature the difference between rule and instruction is not well-established and is controversial, some authors like Schlinger (1993), have attempted to clarify the difference between both terms: he considered a rule an event that alters the function ('eating some kinds of fungus is dangerous'), and an instruction an event given by a speaker that produces a response in a listener which has been reinforced previously ('please, stop').

However, from our point of view, both rules and instructions are referred to ways of controlling the behavior and the difference between them is related to the degree of specificity in which the person is guided. On the one hand, when we speak about general forms of behavior or forms of general functioning of the world, we are speaking about rules, for example: 'everyone can find the way to feel good'. On the other hand, when we speak about verbalizations that demand specific behaviors to a listener we are speaking about instructions, for example: 'give me a napkin'.

This conceptualization is similar to that by Pérez (1996) who differences between descriptive rules and prescriptive rules. The descriptive rules are referred to description of contingencies that derive from the *tact* operation. Here we can include norms ('to get... you have to...'), and also what we know as rules. The prescriptive rules are what we call instructions and they are considered a kind of operant. Furthermore, they derive from the *mand* operation and they have the aim of demanding behaviors to the listener (Pérez, 1996).

To conclude and summarize what we have discussed in the present section, it is important to mention that we have tried to operationalize the act of assigning homework by therapists, a necessary step when a new research line is born. Thus, considering that psychological treatments are based on verbal interactions, we can assume that when the therapist assigns homework he is using a kind of verbalization, which in experimental psychology is known as instructions. Moreover,

they are considered prescriptive rules according to Pérez (1996). From our point of view, looking for terms in experimental psychology in order to use them in clinical psychology is a good starting point in our research line to help linking both fields in Psychology.

### 3. What do we know about instructions?

In the first studies on instructions, the instructions were not the object of study in itself, but they were used in experimental settings in order to make the participants perform a particular task. However, Azrin (1958) and Weiner (1962) found that the participants of their studies did not respond if they were not instructed. Moreover, other authors found that although the participants were carrying out the task before they were instructed, the performance improved if the researchers introduced instructions about what they had to do and what the consequences would be (Baron, Kaufman & Stauber, 1969). These findings allowed the researchers to hypothesize that instructions had the role of controlling the human behavior and this idea was supported for two different findings.

Firstly, an important finding was what is known as insensitivity to the contingencies (Kaufman, Baron & Kopp, 1966), and it refers to the effect of instructions on the behavior although the consequences are not present or even they are different from those which had been previously reported. A lot of studies emerged in order to prove this issue through the use of different kind of instructions, for example, with inaccurate or even false instructions (Lippman & Meyer, 1967; Weiner, 1970).

Insensitivity to the contingencies was an object of discussions among researchers in the field with divergent views, from the more radical ones who thought that this phenomenon did not exist (Galizio, 1979), to the most neutral ones who thought that it was due to the non-exposure to the real contingencies (Kaufman et al., 1966). There were also authors who thought that the insensitivity to the contingencies was a defining property of the instructions (Shimhoff, Catania & Matthews, 1981).

Moreover, the studies carried out in the field were not exempt of criticism about mistakes in their designs (Newman, Hemmes, Buffington & Adreopoulos, 1994), or about their contradictory findings (Ribes y Martinez, 1990). In this sense, Ribes (2000) mentioned that the insensitivity to the contingencies was a fact limited in time, as it disappeared when the person was exposed to the contingencies.

Secondly, the instructions have demonstrated to have the ability to help participants to acquire a response who was not set up by the exposure to the contingencies. In this sense, many studies have demonstrated that participants who were subjected to a reinforcement schedule did not respond according to the consequences until the researchers instructed them about the task they had to do and the consequences they were going to get (Ayllon & Azrin, 1964; Baron & Kaufman, 1966).

These results obtained in the experimental field are clinically useful to explain, predict and modify the behavior of the client, showing that the verbal behavior and concretely the instructions can play a role in the control of the behavior in humans that can be useful in psychological treatments for two different reasons:

- This fact could explain why a client persists in a task the therapist instructed him, although he suffers carrying it out (for example in exposure and response prevention). This fact is frequent in psychological treatments where the clinician assigns homework that the client complies with, but he does not find direct contingencies, or even sometimes, the consequences are aversive.
- Sometimes the client fears about consequences that do not exist, difficulting the building up of new behaviors. In this case, instructions will help them to build up new and more adaptive behaviors that their real contingencies do not allow.

In conclusion, is undeniable that the instructions play a role in controlling the human behavior, underlining what the person has to do and even what he will get if he carries out the instructed task. It will be important to test if the results in clinical settings remain in the same way that in experimental settings, and in this case training therapist with clinical tools obtained through empirical evidence will help to achieve treatments that are more effective.

#### 4. Instructions and compliance

When a therapist instructs a client, he intends to elicit a new behavior, which is expected to be performed. This act of completing the task assigned is what we know as compliance and it has been an active field of study in the last decades in health psychology (Amigó, Fernández & Pérez, 2003). Nevertheless, there is not agreement about the relationship between the terms compliance and adherence to the treatment. Some authors defends that compliance is the same as adherence, and some others say that the compliance of the task does not ensure the adherence. This lack of agreement explains the confusing use of both terms in the scientific literature.

Independently to the differentiation of both terms, the compliance of a task instructed by therapist is indisputably important due to its role on the adherence to the treatment and thus on the effectiveness of the intervention. In this sense, over the years the researchers have tried to find the more complete explanation about the factors that influence the compliance of the tasks assigned in order to modify that variables (see for example: Dattilio, 2002). These findings have contributed to the creation of therapists guidelines that can help the clinicians to identify the factors that could facilitate (or hinder) the completion of the tasks assigned to the clients.

These factors can be summarized in the next four variables:

- Variables related to the client and to his problem: these are factors related to personal characteristics of the client such as personality traits, the degree of hopelessness (Detweiler & Whisman, 1999), the degree of motivation (Whisman, 1993), the perception of self-effectiveness (Stock & Cervone, 1990), some demographic variables (Bryant *et al.*, 1999) or even, the severity of the symptoms (Edelman & Chambless, 1993).
- Variables related to the therapist: some characteristics of the clinician have been frequently related to the compliance of the tasks, concretely, some demographic variables (Helbig & Fehm, 2004), variables related to the performance of the clinician such as the therapeutic style (Edelman & Chambless, 1993), the degree of empathy or rather his behavior during clinical sessions (Startup & Edmonds, 1994), or how the therapist assigns, designs and reviews tasks.
- Variables related to the therapeutic relationship: these variables are referred to the relationship established between the therapist and the client. In this sense, many researchers agree with the importance of a good relationship to improve the completion of the tasks (O'Leary & Wilson, 1987) to the point of believing that it is sufficient for the effectiveness of the treatment.
- Variables related to the treatment and to the task: finally, usually the treatments require the change of some habits of the clients that are harmful for them; for this reason, the characteristics of the treatment like for example, its difficulty or accessibility become factors that influences the completion (Helbig & Fehm, 2004).

Although the attempts of some researchers for looking for isolated variables that explain the therapeutic compliance remain, other researchers with a wider vision have tried to provide an integrating model that explains in the best way the behavior of completion of homework. For example, Detweiler & Whisman (1999) proposed a heuristic model for understanding the homework adherence based in four main variables: the characteristics of the task, of the client, of the therapist and of the relationship between them.

As we have seen, the researchers have been working in different aspects of the compliance, but the ultimate goal seems to be common for them: developing guidelines for the therapists. Specifically, when we review the literature we find many recommendations for therapists to improve the compliance. These are usually recommendations for the verbal interaction

between therapist and client, for example, the use of reinforcement when clients complete the assigned tasks (Garfield, 1997), the specification of what, where and how long the client has to do (Shelton & Levy, 1981), or the use of rationales about the importance of the task (Detweiler & Whisman, 1999). Hence, the actuation of the clinician during the verbal interaction becomes the vertebral cord of the modification of these variables that influence to the compliance behavior in clients.

Nevertheless, this approach to the factors influencing to the compliance has a critical point based on the researching methodology used: it is based on correlations between different variables that indicate a relationship between them, but they are neither causal nor explanatory. For this reason, from our point of view, empirical studies based on experimental methodology are necessary.

### **5. The role of instructions in therapeutic effectiveness**

On the other hand, as we mentioned in previous sections, it is important to have into consideration that the compliance of the tasks is necessary in order to obtain the clinical change of the client and consequently, to get effective treatments. The client puts into practice the intervention techniques treated in the sessions when the therapist assigns them. However, the role of the use of homework and its compliance in the effectiveness of the treatment has been discussed between the researchers in the field.

Beyond any position, the meta-analysis carried out by Kazantzis, Deane & Ronan (2000) showed that the depressed clients who completed most frequently the tasks assigned obtained greater improvements and this is congruent with the findings of Burns & Nolen-Hoeksema (1992) with a depressed sample. Nevertheless, although some studies using experimental methodology did not find the same results (see for example: Neimeyer & Feixas, 1990), the researchers suggested that the differences between the 'instructed' and the 'non-instructed' groups are visible in the maintenance, as the groups which received instructions showed that the improvement remained during the follow-up.

Hence, at the present the majority of the research shows that the use of homework in therapy enhances the effectiveness of the treatment, although in some studies the results are contradictory. For this reason, it is reasonable to think that the use of homework in general will be beneficial for the effectiveness of psychological treatments. In terms of methodology, there are some barriers that researchers cannot control, like the use of self-instructions extracted by the client independently from the therapy.

### **6. Conclusions: past, present and future**

Data obtained until now regarding the use and assignment of homework in therapy show a great heterogeneity in theoretical aspects (what an instruction is, the relationship between compliance and adherence, etc.). Additionally, we find different levels of analysis to study this issue: some studies come from the experimental psychology and others from the clinical psychology. However, when we analyze the aim of study we will likely realize that we are talking about the same processes and therefore, we believe that the link between these research fields is necessary to advance and definitively, to offer a more complete view of the object to study.

In the case of our topic, the homework assignment in therapy, we can assume that the research in experimental psychology in the field of instructions is a suitable base to begin a new research line for this issue in the applied field. Nevertheless, although we are aware that the control of research variables is different in both research contexts, our last aim is to apply what we know about human behavior in laboratory to the natural context of the people. This could explain, predict and modify the behavior of our clients in order to get more adaptive behaviors.

Regarding the research about the factors related to the compliance of the instructions, as we have mentioned, there are indicators that are related to the compliance, but nothing is known about a concrete causal explanation about the compliance phenomenon. It is clear that the compliance can be considered a multi-factorial phenomenon, but it is also clear that the therapist can modify these factors through his behavior, concretely, through his verbal behavior when he

instructs. In fact, the guidelines for improving the compliance are based mainly on the behavior of the therapist: what he does or rather, what he says. However, although many researchers suggest that it is important, not many authors have been interested in studying systematically the verbal interaction when the clinician instructs; they only take for granted that it is significant.

For this reason, from our point of view there is the need for researching the effect of the verbal interaction when the therapist instructs on the compliance of the tasks. This could be achieved through experimental methodology, but also through observational studies. These studies will provide guidelines for the therapists based on scientific evidence.

In our research group, we have conducted observational studies to describe how is the verbal interaction in therapy, and we think that in the case of the instructions, the observation of the therapeutic interaction is a good starting point to formulate some hypothesis about how it influences the compliance of the tasks. This could later be tested with experimental studies.

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