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Young Adults and the Psychotic Disorders: A systematic review of Randomized Clinical Trials(RCTs), investigating the efficacy of Cognitive-Behavioral Therapy and Acceptance and Commitment Therapy

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Abstract

Psychotic symptoms, or episodes are mostly associated with chronic, severe, and treatment refractory adult schizophrenia cases, with a usual onset around 10 ± 2 years of age. The present systematic, qualitative analysis attempts to explore the effectiveness of Cognitive Behavioral Therapy (CBT) and Acceptance and commitment therapy (ACT) on psychosis-related symptoms in young adults. For the facilitation of this analysis, the most relevant Randomized Clinical Trials (RCTs) were chosen.A time frame from 2010 to present was applied regarding the effectiveness of CBT and ACT on young adults regarding Psychosis. CBT is a psycho-social intervenionarytool, aims to the improvement of mental health, focuses on challenges e.g. changing cognitive distortions and behaviors.ACT is a part of clinical behavior analysis, a type of psychotherapy, and it is an empirically supported psychological intervention that increases psychological flexibility by combining acceptance and mindfulness tactics with commitment and behavior-change strategies in various ways. Advantages emerged by the two analyzed interventions as well as methodological limitations across studies clearly defining the needs that must be fulfilled when attempting to manage the difficulties emerging in young adults within the psychotic spectrum.A combination of CBT and ACT may be powerful against psychosis, considering that cognitive transformation and mindful engagement, respectively, may give a strong tool for penetrating in psychotic mental states.

Keywords

Psychosis, young adults, Cognitive Behavioral Therapy, Acceptance and commitment therapy, Randomized Clinical Trials.

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Introduction

Psychosis is a term referring to a mental disorder in which it is difficult for a person to distinguish between what is real and what is not. Alternatively, the disorder could be described as experiencing reality in a different way compared to others [1,2]. As a clinical syndrome, Psychosis consists of core symptoms such as delusions, hallucinations and thought disorders [3]. Psychotic symptoms, or episodes are mostly associated with chronic, severe, and treatment refractory adult schizophrenia cases, with a usual onset around 10 ± 2 years of age [4]. However, results of a longitudinal study attempting to identify age onsets for psychopathology such as schizophrenia, suggest late adolescence as a crucial period for such onset, since brain development in this span may undergo phenotypical alternations [5]. Grounding on the last-mentioned argument, Armando and colleagues [6] indicate that the incidence rates of psychosis peak is around the age of 22 years. Moreover, this age-group is suggested to be considered as a span where individuals with a clinical background for Psychosis are in elevated clinical risk for the onset of Psychosis [7]. Psychotic disorders often co-occur with other disorders, not only schizophrenia, but may co-present with personality disorders, within the range of clusters A and B of personality disorders, mood disorders, such as Major Depressive Disorder, with low self-esteem, impaired functionality, anxiety and fear being the most prevalent characteristics [8]. All above arguments magnify the reasons why psychological interventions are crucial to be settled in this age-group considering Psychosis. Cognitive Behavioral Therapy(CBT),Supportive Therapy and Counselling, Psychoanalysis/Psychodynamic Psychotherapy, Acceptance and Committed Therapy (ACT) and Psychoeducation are considered to be the most prominent in treating Psychosis. However, significant treatment effects are followed mostly with the use of antipsychotic medication.

The present systematic, qualitative analysis attempts to explore the effectiveness of CBT and ACT on psychosis-related symptoms in young adults. For the facilitation of this analysis, the most relevant Randomized Clinical Trials (RCTs) published that include data answering to the main objective of the study and reveal significant results, were chosen. Psychosis is a challenging condition. It may be accompanied by comorbid disorders and difficulties in main individual domains, starting with the cognitive one, affecting the emotional and behavioural. Thus, the trials employed utilized more intervention methods besides CBT and ACTe.g.,
Treatment As Usual (TAU). Furthermore, and because it seems that there is a small literature gap on reliable findings considering the psychotic spectrum in young adults, beyond the RCTs that were found, six studies were chosen to be analysed (Appendix1). In conclusion, what emerges from such a study is the fact that on the one hand these interventions can be weakened in the face of a situation such as psychosis, and on the other hand, the methodological limitations in such clinical studies seem to contribute to this weakening.

Methods

Psychotic disorders may be characterized as a whole spectrum. For avoiding misconceptions when discussing such a condition, the present study uses DSM-V [1], but also explanatory parts from related studies to define it. Clinicaltrials.gov, PumMed.gov and CohraineLibrary.com are the databases from which the articles were extracted. A time frame from 2010 to present was applied during the initial search, to have as much as recent data, regarding the effectiveness of CBT and ACT on young adults regarding Psychosis, aiming to the most resistant symptoms of the condition. Beyond the two selected interventions for investigation, the chosen clinical trials adopted CBT on its pure form, a CBT adaptation for psychosis (CBTp), ACT (on its pure form and with adjustments), medication, Skills Training, Cognitive Remediation, Family Psychoeducation. Because the clinical population recruited was vulnerable, the CASP assessment of the six trials proved to be satisfactory, as ethical considerations and strict data analysis were met. (Appendix 2). However, some violations regarding recruitment were noticed.

Due to the limited number of existent targeted studies, accompanied also by small magnitudes of effects and significances, the withdrawal phenomenon from most trials and the fact that capturing the entire spectrum of Psychosis for addressing difficulties is challenging, the studies were chosen with extreme caution. “Psychosis”, “young adults”, “cognitive behavioral therapy”, “supportive therapy” and “Randomized Clinical Trials” were the main keywords used during the initial search. Furthermore, to reduce time and translating issues, a filter for studies published in the English language was set. Six published clinical trials were chosen to be examined regarding the efficacy of the techniques employed for addressing challenges arising from psychosis, as well as their intervenor dynamics. Thus, in the three trials, CBT techniques are examined for their efficacy in addressing secondary symptoms and remodeling cognition, whilst in the other three research, ACT are tested for their competence in addressing qualities like fear and avoidance. In the next section of the study, an analytic discussion will follow, starting with the exploration of the CBT efficacy.

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CBT and the Psychotic Spectrum

CBT is a psycho-social interventiontory tool, aims to the improvement of mental health, focuses on challenges e.g. changing cognitive distortions and behaviors, focuses on the improvement of emotional regulation and on the development of personal coping mechanisms and attitudes towards solving-behaviors regarding current problems [9,10]. CBT adapted for psychosis (CBTp) targets to assist a person experiencing delusions and hallucinations (distorted ideas, sensory experiences that no other person experiences) and remodel the way the individual thinks and responds to these experiences [11]. The remodeling's intendent goal is to make individuals within the psychotic spectrum to be less distressed and improve functionality in everyday life. Metanalytic and meta-regressive study [12] yields that CBTp has an effect from "small" to "medium" on psychotic symptoms, especially for delusion but with a treatment span of one year and more. However, Mehl and colleagues[13] argue that this effectiveness on reducing delusions does not have a long-term transference, since CBT targets the symptom instead of dealing with causal factors.

Sönmez and colleagues [14] applied a CBTp grounded on Kingdon and Turkington's protocol [15], whereas Benhdolf and colleagues [16] utilized individual-CBT described by Beck [17] as a part of an integrative method and van der Gaag et al. [18] used French and Morrison's CBT protocol, which is based to deal with cognitive biases. The study of Sönmez and colleagues [14] was the first RCT (at least to their knowledge) examining the efficacy of CBT on psychosis with the focal point being depressive and low-self-esteem symptoms. Remarkable benefits were demonstrated on reducing negative symptomatology and functioning. Benhdolf et al. [16] during a 12-month treatment period of remodeling cognitive biases related to psychotic symptoms, noticed a significant lower improvement on patients which went through the integrative method. CBT, as a component of the integrative method, was improved by the absolute risk redactor, as the tool which led to better prevention of psychotic distortion. Van der Gaag et al.'s [18] major finding emerged to add in the literature that the number of individuals that transit to psychosis may be abridged by about 50% when a CBT tool is used, due to its ability to target cognitive biases.

Considering the results of the above-mentioned studies, it arises that CBT's specialization in emotional remodeling on a cognitive ground may firstly, reduce psychotic symptoms and secondly, may act as a risk reductor while protecting individuals from psychotic cognitive distortion. However, there are some crucial factors which may support for non-reliability for such positive results. In Sönmez and colleagues' [14] study CBT did not demonstrate superiority over TAU, both in relation with the primary outcome (depressive symptoms) and the secondary outcome (self-esteem). Furthermore, no evidence is recorded regarding TAU that was used and therefore, the kind of treatment that is compared to CBT remains unknown. Regardless the utilization of multiple psychological interventions as parts of an integrative method in Benhdolf and colleagues' [16] study, it is unclear whether the significant improvement in remodeling cognitive biases induced by psychotic disorder, is attributed to the efficacy of CBT, which also means that the trial design does not allow for the evaluation of the specialization of the other psychological tools that were used. Regarding van der Gaag and colleagues' [18] study, a major limitation is associated with their small sample size which imposes the need to replicate the results in larger samples. Similarly, Sönmez et al. [14] recruited 60 participants, on the contrary to their power calculation, which indicated that at least 100 patients were needed to avoid type 1 and 2 errors. Therefore, the significancy of such positive results of the two studies may be due to the type 1 error produced by small effects sizes.

In the methodological function between participants and errors, some adjustments were observed that either a) worked in the favor of a specific intervention or b) against to the health of the patients themselves. More specifically and around the a) factor, Benhdolf et al. [16] facilitated a higher number of face-to-face contacts with therapists for the integrative method, including CBT, than the control phase, like van der Gaag et al. [18], whereby the experimental group went through CBT, had more therapy sessions than the control group. Moreover, Benhdolf et al. [16] did not included a "no treatment" group and thus, it ruled out whether participants may have improved without interventions. Contemplating b) factor, it has been reported that the study of van der Gaag et al. [18] has violated exclusion criteria which would have protected such a vulnerable clinical sample, to satisfy the design's needs, needs which may also imposed the authors to recruit non-experienced therapists to perform the therapeutic sessions, acknowledging the fact that no formal measures or assessments of therapists were employed.

ACT and Psychosis Spectrum

ACT is a part of clinical behavior analysis, a type of psychotherapy, and it is an empirically supported psychological intervention that increases psychological flexibility by combining acceptance and mindfulness tactics with commitment and behavior-change strategies in various ways [19]. ACT

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attempts to transform people's attitudes toward their own feared or avoided ideas, feelings, memories, and bodily sensations. Patients are taught to lessen avoidance, attachment to cognitions, enhance focus on the present using acceptance and mindfulness practices, define their goals and values, as well as how to commit to behavioral change procedures [20]. Metanalytic evidence created turbidity around ACT; from the one hand A-Tjak et al. [21] yielded that ACT surpasses usual treatment efforts on reducing depression, anxiety, fear, and somatic health problems; all of which are found on psychosis patients. On to the other hand, Ruiz & Francisco [22] argued that small effects sizes which have produced in the most clinical trials, either revealed the low transference of such success in everyday life or involved methodological issues.

Germeys et al. [23] adopted ACT Daily Life (ACT-DL) and ACT-DL Ecological Mocumentary Intervention (ACT-EMI) where both included transferences of everyday life, precisely for the changes to be adapted indeed – however, the ACT-DL intervention featured both a face-to-face and an EMI component-, whereas Shaweyr et al. [24] and White et al. [25] applied ACT psychosis protocols. Starting the synthetical analysis, it must be considered that only Germeys et al. [23] achieved high standards of effect sizes, which means that their results might have an application to the general population. White et al. [25] beyond the fact that they did not fulfill effect sizes standards, excluded two participants with affective disorder diagnoses, which might have skewed the outcomes of their study. In Germeys et al. [23] RCT of 148 people in the early stages of psychosis revealed no indication that ACT-DL alleviated psychotic distress related to psychosis more than standard treatment after the intervention considering follow-ups within the time frame 6 to 12-months. Momentary psychotic distress, negative symptoms, and functioning, on the other hand, were found to have substantial consequences. While the integrated care approach of in person ACT combined with the ACT-DL EMI did not yield significant improvements considering psychotic distress compared to standard treatment, it did provide promising suggestions for the treatment of momentary psychotic distress, negative symptoms, and improving functioning. Shaweyr et al. [24] found no difference in general mental state across the groups. At follow-up, the ACT group demonstrated larger improvement in positive symptoms and hallucinatory distress in secondary analyses. The lack of process-measure changes, on the other hand, shows that the ACT intervention utilized did not affect any of the targeted processes other than befriending. In White et al.'s [25] study, individuals who were randomly assigned to get ACT found the treatment to be acceptable, despite the modest numbers, substantial effect sizes for relationships between specific variables that were observed, and the fact that the study's followup time was extremely brief. The ACT group had a much higher percentage of those who went from depression at the start of the trial to inexistence of depression at the end. The ACT group demonstrated a significant improvement in mindfulness abilities as well as a decrease in negative symptoms. Individuals who were randomly assigned to ACT had significantly fewer crisis contacts during the trial. Changes in mindfulness abilities were linked to improvements in depression. In psychosis, ACT appears to be effective in lowering negative feelings, depression, and crisis contacts. However, the trial's subjects were diagnosed with a variety of psychiatric disorders and thus, the pragmatic aspect of recruiting gives ecological invalidity to the study. The types of challenges that people with different psychotic disorders face are remarkably similar. Another flaw is the lack of a diagnostic interview to validate case-file diagnosis. In the study of Germeys et al. [23] the control condition includes both nonmanualized and manualized TAU. As a result, among all subjects assigned to TAU, there was no control for the effect of having organized treatment per se. Furthermore, even though the fact that antipsychotic medication was an exclusion criterion for their study, antipsychotics were provided indeed to most within the sample. In parallel, Shaweyr et al. [24] despite the high level of trial rigor, randomization was not totally successful, and drop-out rates were significant. Due to the lack of a treatment-as-usual comparison, it is impossible to identify how much of the observed main effect of time on numerous variables is due to specific effects of each therapy or other factors. Although both groups represent the early stages of psychosis and are regarded chronologically and phenomenologically continuous, according to the psychosis staging model, they present various degrees of disorder.

Discussion

The goal of this study was to evaluate how effective CBT and ACT are at alleviating the challenges that young adults with psychotic symptoms face. Furthermore, despite the high percentage of modest effect sizes observed in most clinical research, some encouraging results for a specific set of traits that could be considered when evaluating young adults on the psychotic spectrum were discovered. CBT is frequently regarded as the most successful psychosocial intervention for managing the most common challenging problems in adults, such as mood disorders. CBT was found to reduce negative symptomatology of psychosis and impaired functioning, preventing the psychotic cognitive transformation

that the syndrome forces to the individuals and in total in blocking the psychotic transit [14,16,18], in line with Sitko et al. [12] that CBTp can have an effect from "small" to "medium" on psychotic symptoms. ACT was found to reduce momentary psychotic distress, negative symptoms, and impaired functioning, demonstrated larger improvement in positive symptoms and hallucinatory distress and led Individuals who were randomly assigned to ACT in significantly fewer crisis contacts [23,24,25]. The adaptions of mindfulness abilities were also linked to reduced depression. However, the present analyzed RCTs showed that a) CBT and ACT are not superior over TAU and therefore b) they cannot be settled as a first line intervention, c) existent methodological issues either worked in the favor of the two interventions (e.g., more therapy sessions in the experimental groups) or weakened it (e.g., the use of antipsychotics, even though the use of medication was an exclusion criterion in a trial).

Advantages emerged by the two analyzed interventions as well as methodological limitations across studies clearly defining the needs that must be fulfilled when attempting to manage the difficulties emerging in young adults within the psychotic spectrum. Acknowledging the fact that psychotherapy is a second line intervention when it comes to psychosis, psychotherapeutic tools should be updated in a way that responds to the existing needs of patients. According to Sitko et al. [12], time, and more specifically wide range of time may answer to the suppression of psychosis. Therefore, longitudinal clinical trials may be preferred for two reasons: will give the opportunity to see psychosis unique transformations and will advantage the problem of small N. A combination of CBT and ACT may be powerful against psychosis, considering that cognitive transformation and mindful engagement, respectively, may give a strong tool for penetrating in psychotic mental states.

References

1. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*
2. Datta, S. S., Daruvala, R., & Kumar, A. (2020). *Psychological interventions for psychosis in adolescents.* Cochrane Database of Systematic Reviews. doi:10.1002/14651858.cd009533.p
3. Gaebel, W., Zielasek, J., & Cleveland, H.-R. (2012). Classifying psychosis – challenges and opportunities. *International Review of Psychiatry, 24(6), 538–548. doi: 10.3109/09540261.2012.737313*
4. McGrath, J. J., Saha, S., Al-Hamzawi, A. O., Alonso, J., Andrade, L., Borges, G., … Kessler, R. C. (2016). Age of Onset and Lifetime Projected Risk of Psychotic Experiences: CrossNational Data From the World Mental Health Survey. *Schizophrenia Bulletin, 42(4), 933–941*. doi:10.1093/schbul/sbw011
5. Gogtay, N., Vyas, N. S., Testa, R., Wood, S. J., & Pantelis, C. (2011). Age of Onset of Schizophrenia: Perspectives From Structural Neuroimaging Studies. *Schizophrenia Bulletin, 37(3), 504–513. doi:10.1093/schbul/sbr030*
6. Armando, M., Klauser, P., Anagnostopoulos, D. et al. (2020). Clinical high risk for psychosis model in children and adolescents: a joint position statement of ESCAP Clinical Division and Research Academy. *European Child and Adolescent Psychiatry, 29, 413–416 doi: 10.1007/s00787-020-01499-3*
7. Fusar-Poli, P., De Micheli, A., Signorini, L., Baldwin, H., de Pablo, G. S., & McGuire, P. (2020). Real-world long-term outcomes in individuals at clinical risk for psychosis: The case for extending duration of care. *EClinicalMedicine*, 28, 100578. doi:10.1016/j.eclinm.2020.1005
8. Malla, A., & McGorry, P. (2019). Early Intervention in Psychosis in Young People: A Population and Public Health Perspective. *American Journal of Public Health*, 109(S3), S181– S184. doi:10.2105/ajph.2019.305018
9. Beck J., S. (2011), *Cognitive behavior therapy: Basics and beyond (2nd ed.),* New York: The Guilford Press, pp. 19–20
10. Field, T. A., Beeson, E. T., & Jones, L. K. (2015). The new abcs: A practitioner's guide to neuroscience-informed cognitive-behavior therapy. *Journal of Mental Health Counseling*, 37(3), 206–220. Doi: 10.17744/1040-2861-37.3.206
11. Garrett, M. (2012). Cognitive behavioral therapy for psychosis (cbtp). *Handbook of Community Psychiatry*, 153–161. Doi: 10.1007/978-1-4614-3149-7_13
12. Sitko, K., Bewick, B. M., Owens, D., & Masterson, C. (2020). Meta-analysis and Metaregression of Cognitive Behavioral Therapy for Psychosis (CBTp) Across Time. The Effectiveness of CBTp has Improved for Delusions. *Schizophrenia Bulletin Open, 1(1). doi:10.1093/schizbullopen/sgaa023*
13. Mehl, S., Werner, D., & Lincoln, T. M. (2015). Does Cognitive Behavior Therapy for psychosis (CBTp) show a sustainable effect on delusions? A meta-analysis. *Frontiers in Psychology*, 6. doi:10.3389/fpsyg.2015.01450
14. Sönmez, N., Romm, K. L., Østefjells, T., Grande, M., Jensen, L. H., Hummelen, B., Tesli, M., Melle, I., & Røssberg, J. I. (2020). Cognitive behavior therapy in early psychosis with a focus on depression and low self-esteem: *A randomized controlled trial. Comprehensive Psychiatry*, 97, 152157. Doi: 10.1016/j.comppsych.2019.152157
15. Kingdon, D. G., &Turkington, D. (2005). *Cognitive therapy of schizophrenia*. Guilford Press.
16. Bechdolf, A., Wagner, M., Ruhrmann, S., Harrigan, S., Putzfeld, V., Pukrop, R., … Klosterkötter, J. (2012). Preventing progression to first-episode psychosis in early initial prodromal states. *British Journal of Psychiatry*, 200(01), 22–29. doi:10.1192/bjp.bp.109.066357
17. Beck A., T. (1976). *Cognitive Therapy and the Emotional Disorders*. International University Press
18. Van der Gaag, M., Nieman, D. H., Rietdijk, J., Dragt, S., Ising, H. K., Klaassen, R. M. C., … Linszen, D. H. (2012). Cognitive Behavioral Therapy for Subjects at Ultrahigh Risk for Developing Psychosis: A Randomized Controlled Clinical Trial. *Schizophrenia Bulletin*, 38(6), 1180–1188. doi:10.1093/schbul/sbs105

DOI: 10.26386/obrela.v5i1.216

19. Plumb, J. C., Stewart, I., Dahl, J., & Lundgren, T. (2009). In search of meaning: Values in modern clinical behavior analysis. *The Behavior Analyst*, 32(1), 85–103. doi:10.1007/bf03392177
20. Gaudiano, B., Davis, C., Epstein-Lubow, G., Johnson, J., Mueser, K., & Miller, I. (2017). Acceptance and Commitment Therapy for Inpatients with Psychosis (the REACH Study): Protocol for Treatment Development and Pilot Testing. *Healthcare*, 5(2), 23. doi:10.3390/healthcare5020023
21. A-Tjak, J. G. L., Davis, M. L., Morina, N., Powers, M. B., Smits, J. A. J., & Emmelkamp, P. M. G. (2014). A Meta-Analysis of the Efficacy of Acceptance and Commitment Therapy for Clinically Relevant Mental and Physical Health Problems. *Psychotherapy and Psychosomatics*, 84(1), 30–36. doi:10.1159/000365764
22. Ruiz, J. & Francisco, J. (2012). "Acceptance and commitment therapy versus traditional cognitive behavioral therapy: A systematic review and meta-analysis of current empirical evidence". *International Journal of Psychology and Psychological Therapy*, 12 (3), 333– 358.
23. Myin-Germeys, I., van Aubel, E., Vaessen, T., Steinhart, H., Klippel, A., Lafit, G., Viechtbauer, W., Batink, T., van Winkel, R., van der Gaag, M., van Amelsvoort, T., Marcelis, M., Schirmbeck, F., de Haan, L., & Reininghaus, U. (2021). Efficacy of acceptance and commitment therapy in daily life (act-dl) in early psychosis: Results from the multi-center interact randomized controlled trial. Doi: 10.1101/2021.05.28.21257986
24. Shawyer, F., Farhall, J., Thomas, N., Hayes, S. C., Gallop, R., Copolov, D., & Castle, D. J. (2017). Acceptance and commitment therapy for psychosis: Randomised controlled trial. *British Journal of Psychiatry*, 210(02), 140–148. doi:10.1192/bjp.bp.116.182865
25. White, R., Gumley, A., McTaggart, J., Rattrie, L., McConville, D., Cleare, S., & Mitchell, G. (2011). A feasibility study of Acceptance and Commitment Therapy for emotional dysfunction following psychosis. *Behaviour Research and Therapy*, 49(12), 901–907. doi:10.1016/j.brat.2011.09.003

Appendices

Appendix 1
Basic characteristics of the chosen studies

Author/ Year	CASP Check	Study	Psycho-therapeutic intervention	N	N mean age
Sönmez et al. (2020)	10/10	RCT	CBT	63	28.8
Bechdolf et al. (2012)	7/10	RCT	CBT	128 (62 on CBT)	25.2
Vandergaag et al. (2012)	8/10	RCT	CBT	201 (98 on CBT)	22.9
Germeys et al. (2021)	9/10	RCT	ACT	196 (71 on ACT)	25
Shaweyr et al. (2016)	9/10	RCT	ACT	97 (49 on ACT)	34
White et al. (2011)	8/10	RCT	ACT	27 (14 on ACT)	33

Appendix 2

	1	2	3	4	5	6	7	8	9	10
Sönmez (CBT)	v	v	v	v	v	v	v	v	v	v
Bechdolf (CBT)	v	v	v	v	v	v	x	v	x	x
Van der Gaag (CBT)	v	v	v	v	v	v	v	x	x	v
Germeys (ACT)	v	v	v	v	v	v	v	v	x	v
Shawyer (ACT)	v	v	v	v	v	v	v	v	v	x
White (ACT)	v	v	v	v	v	v	v	x	v	x