Abstract: (light summary)

Introduction: (background info, why the studies are important)

* Give background to CBD, what it is on a chemical level, how it is used, and how it neurologically affects the body and brain (sources 3 and 4, Shannon and Fusar-Poli, are best for this)
* Explain the reason why each study was conducted, with this comes the explanation of how/why these studies are important in a psychological context
* Include the expectations for each study, what those who conducted it hypothesized would occur, contextualize each study without detailing the methods (example: studies number \_\_\_ and \_\_\_ were naturalistic while numbers \_\_\_ and \_\_\_ were controlled, just brief introductions to each one)

Methods: (How studies measure anxiety differently, how they conducted the studies, the population of people, whether they had previous diagnoses and which diagnoses, etc)

* General overview of how they went about the study: CBD or Placeo taken → 80 mins later pre measurements, 2 min prep for speech, measurements before during and after they spoke (4 different times during and after) (Bergamaschi), 4-week intervention of daily life triggers measurements taken before and after (Masataka) Measurements made at baseline, and monthly, patients could continue treatment as desired, anxiety patients took CBD 50 mg/d or 75 mg/d (depending on patient this might have gradually increase), anxiety patients took after breakfast, sleep patients took after dinner daily (Shannon S., Lewis N., Lee H., Hughes S.), 3 sessions of showing faces to trigger emotions, with CBD or THC administered before, taking measurements at baseline, 1, 2 hrs after drug taken, during exposure, and a few times a month (Fusar-Poli P, Crippa JA, Bhattacharyya S)
* Comparison of Population (what type of anxiety, age, gender, location): generalized social anxiety disorder and healthy control patients (Bergamaschi), all with Social anxiety disorder and avoidant personality types (Masataka), 72 patients with concern of mainly anxiety or poor sleep disorders (Shannon S., Lewis N., Lee H., Hughes S.), 15 “healthy,” English-native, right-handed men who had used cannabis 15 times or fewer in their life, had no cannabis use in the last month, no personal or family history of psychiatric illness, and no alcohol or other drug abuse or dependence (Fusar-Poli P, Crippa JA, Bhattacharyya S)
* Comparison of how they measured anxiety (self evaluation, physiological measurements: Visual Analogue Mood Scale, Self-Statements during Public Speaking Scale, Bodily Symptoms Scale (Bergamaschi), Fear of negative Evaluation Scale, The Liebowitz Social Anxiety Scale (both FNE and LSAS were self-administered), Structured Clinical Interview for DSM-IV Axis I and 2 (administered by Psychiatrists) (Masataka), anxiety patients tracked anxiety through Hamilton Anxiety Rating Scale, Sleep concerns measure using Pittsburg Sleep Quality Index (Shannon S., Lewis N., Lee H., Hughes S.), used Functional MRI data were analyzed with statistical parametric mapping software, STAI, AIS, VAMS, and PANSS subscores for anxiety, measured regional brain flow and Skin conductance (Fusar-Poli P, Crippa JA, Bhattacharyya S)

Results: (each bullet is new paragraph)

* General reduced anxiety in all four studies
* How it affected the brain (Fusar-Poli P, Crippa JA, Bhattacharyya S), include info from other articles about CBD effects brain function
* Study lacks statistical significance for physiological measure (Bergamaschi), conversely
* CBD is better tolerated treatment for anxiety (Shannon S., Lewis N., Lee H., Hughes S) and patients were more likely to seek help after using this treatment method (Masataka)
* After exposure to anxiety induced activities (public speaking, daily activities, viewing intensely fearful stimuli) three sources said a decrease in anxiety, cognitive impairment, negative self evaluation, and discomfort in their speech performance (S) and significantly decreased alert in their anticipatory speech (Bergamaschi), feelings of fear and anxiety were reportedly reduced (Masataka), and reduced engagement in the amygdala and cingulate cortex, correlated with electrodermal response (Fusar-Poli P, Crippa JA, Bhattacharyya S)

What’s missing:

* Sources 1 and 3 maintain that controlled clinical studies are needed to solidify their conclusions
* Further sociodemographic evaluations should be done to evaluate similarity of treatment groups before the studies and comparison groups should have been included (specifically for source 3 in which the sample was people who already receive psychiatric treatment and medication), and it should be kept in mind that public opinion about CBD may contribute to a placebo effect
* Larger test groups should have been used for more accuracy
* Unsure of if sources 1-3 mentioned ethical considerations, look into this more/reread sources, but if they did not, that’s a missing factor that should be considered
* Not necessarily something missing from these studies specifically, but missing from the study of CBD and its effect on anxiety overall is the research of how CBD affects other neurological disorders and compare that with the effect it has on anxiety to see comparisons and determine the effectiveness of CBD overall in different contexts
* Could be interesting to see how CBD affects different types of anxiety and compare, could help in overall understanding, but these studies were mostly referring to generalized anxiety disorder

Conclusion: (explanation of how everything ties together and what the results mean for the effectiveness of CBD as a treatment for anxiety)