I was missing part of the CYPHER, here is the full CYPHER:

with snomedct.map\_create() as sctids, snomedct.map\_create() as patids

with patids, snomedct.map\_set(sctids, "mental\_disorders", snomedct.code\_subsumes\_codes('74732009')) as sctids

with patids, snomedct.map\_set(sctids, 'nervous\_system\_disorders', snomedct.code\_subsumes\_codes('118940003')) as sctids

MATCH (p:Participant)-[:P\_SCT]->(o:ObjectConcept) where o.sctid in sctids["mental\_disorders"]

with sctids, snomedct.map\_set(patids, 'distinct\_md\_patids', collect(distinct p.ParticipantId)) as patids

match (p:Participant)-[:P\_SCT]->(o:ObjectConcept) where o.sctid in sctids['nervous\_system\_disorders']

with sctids, snomedct.map\_set(patids, 'distinct\_ns\_patids', collect(distinct p.ParticipantId)) as patids

return size(sctids['mental\_disorders']), size(sctids['nervous\_system\_disorders']), size(patids['distinct\_md\_patids']), size(patids['distinct\_ns\_patids'])

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**Cc:** Pedersen, Jay G <[jay.pedersen@unmc.edu](mailto:jay.pedersen@unmc.edu)>  
**Subject:** Jay -- UCD -- CYPHER with Java Plugin -- example looking at two different SNOMED codes and their relationships to participants using a single CYPHER query

Hi,

THis is really what I was trying to get at (this kind of example).  And the query here could be changed to go from

various sets of participants instead of all participants ... to look at how the categories

of participants have relationships to various SNOMED code classes (like neurologic disorders

compared to behavior disorders etc).

CYPHER:

with patids, snomedct.map\_set(sctids, 'nervous\_system\_disorders', snomedct.code\_subsumes\_codes('118940003')) as sctids

MATCH (p:Participant)-[:P\_SCT]->(o:ObjectConcept) where o.sctid in sctids["mental\_disorders"]

with sctids, snomedct.map\_set(patids, 'distinct\_md\_patids', collect(distinct p.ParticipantId)) as patids

match (p:Participant)-[:P\_SCT]->(o:ObjectConcept) where o.sctid in sctids['nervous\_system\_disorders']

with sctids, snomedct.map\_set(patids, 'distinct\_ns\_patids', collect(distinct p.ParticipantId)) as patids

return size(sctids['mental\_disorders']), size(sctids['nervous\_system\_disorders']), size(patids['distinct\_md\_patids']), size(patids['distinct\_ns\_patids'])

RESULT:

In this case, in my DB:

I find 1806 SNOMED codes for mental disorders and 6951 SNOMED codes for nervous system disorders.

I find that 314 of the UCD Participants have at least one mental disorder code, and 307 have at least one nervous system disorder code.

NOTE: I am liberally using the "with" statement.  It is necessary to do that kind of thing to stop from getting

          cartesian products.  For example ... if you tried to do those MATCH statements back-to-back,

          everything would slow to a crawl in the database.  I am using those "maps" to store the results

          and then move on with the next match.

"size(sctids['mental\_disorders'])"│"size(sctids['nervous\_system\_disorders'])"│"size(patids['distinct\_md\_patids'])"│"size(patids['distinct\_ns\_patids'])"│

╞══════════════════════════════════╪══════════════════════════════════════════╪════════════════════════════════════╪════════════════════════════════════╡

│1806 │6951 │314 │307 │

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