

Network analysis

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Network analysis of Grey anatomy

```
plot(g)
```



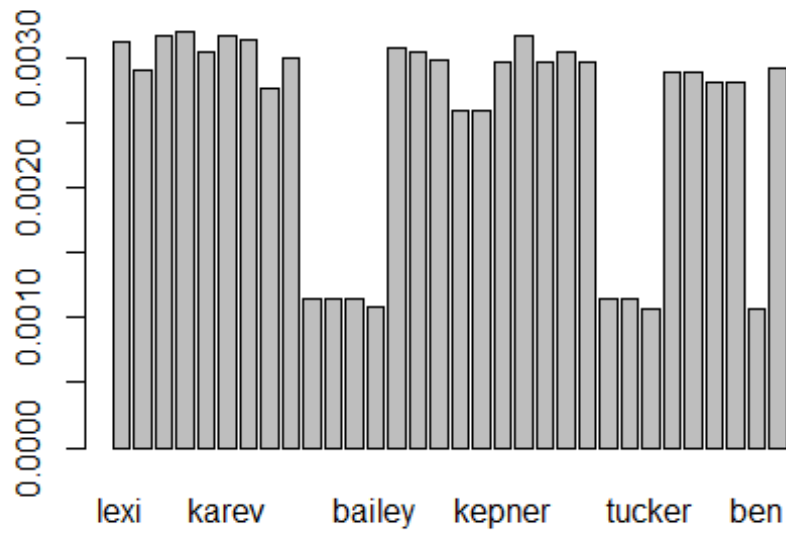
```
b=betweenness(g)
c=closeness(g)
d=degree(g)
e=evcent(g)
#max betweenness
which.max(b)

## sloan
##      3

#max closeness
which.max(c)

## torres
##      4
```

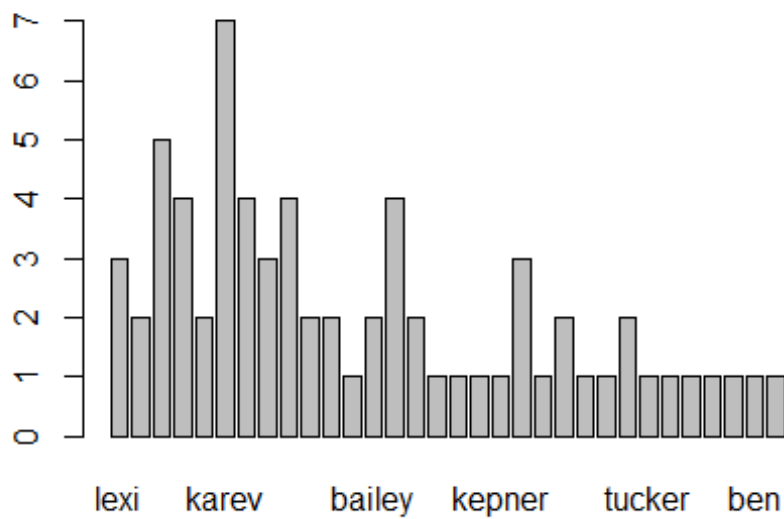
```
barplot(c)
```



```
#max degree  
which.max(d)
```

```
## karev  
##      6
```

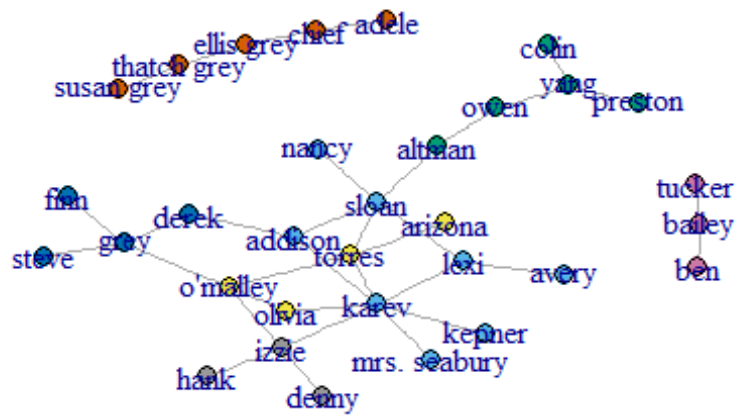
```
barplot(d)
```



```
#max Eigencetor
which.max(e$vector)

## karev
##      6

# edge betweenness algorithem
fc=edge.betweenness.community(g)
plot(g,vertex.size=6,vertex.color=fc$membership+1,asp=FALSE)
```



```
sizes(fc)
```

```
## Community sizes
```

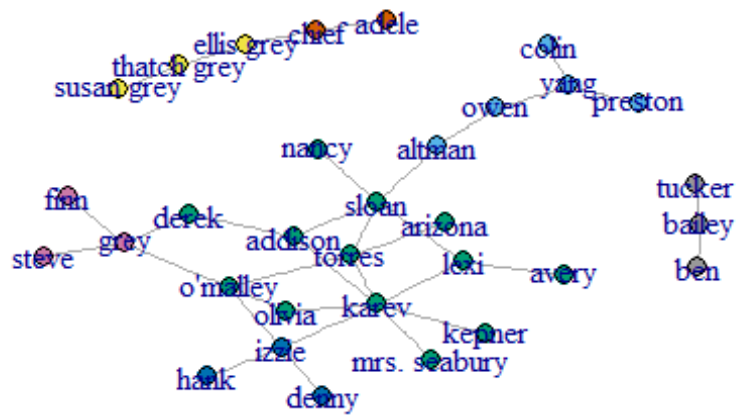
```
## 1 2 3 4 5 6 7
```

```
## 8 5 4 4 5 3 3
```

```
#walktrap algoritem
```

```
ff=walktrap.community(g)
```

```
plot(g,vertex.size=6,vertex.color=ff$membership+1,asp=FALSE)
```



```
sizes(ff)
```

```
## Community sizes
##  1  2  3  4  5  6  7
##  5 13  3  3  2  3  3
```