

```
In [1]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
In [2]: dataset = pd.read_csv('C:/Users/prajw/Desktop/Indexs/DSBDA print/Assignment 9 (Data Visualization II)/titanic.csv')
dataset.head()
```

Out[2]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	deck	embark_town	alive	alone
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	NaN	Southampton	no	False
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	C	Cherbourg	yes	False
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	NaN	Southampton	yes	True
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	C	Southampton	yes	False
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	NaN	Southampton	no	True

```
In [3]: dataset.shape
```

Out[3]: (891, 15)

```
In [4]: dataset.isnull()
```

Out[4]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	deck	embark_town	alive	alone
0	False	False	False	False	False	False	False	False	False	False	False	True	False	False	False
1	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False	False	False	False	True	False	False	False
3	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False	False	False	False	True	False	False	False
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
886	False	False	False	False	False	False	False	False	False	False	False	True	False	False	False
887	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
888	False	False	False	True	False	False	False	False	False	False	False	True	False	False	False
889	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
890	False	False	False	False	False	False	False	False	False	False	False	True	False	False	False

891 rows × 15 columns

```
In [5]: dataset.isnull().sum()
```

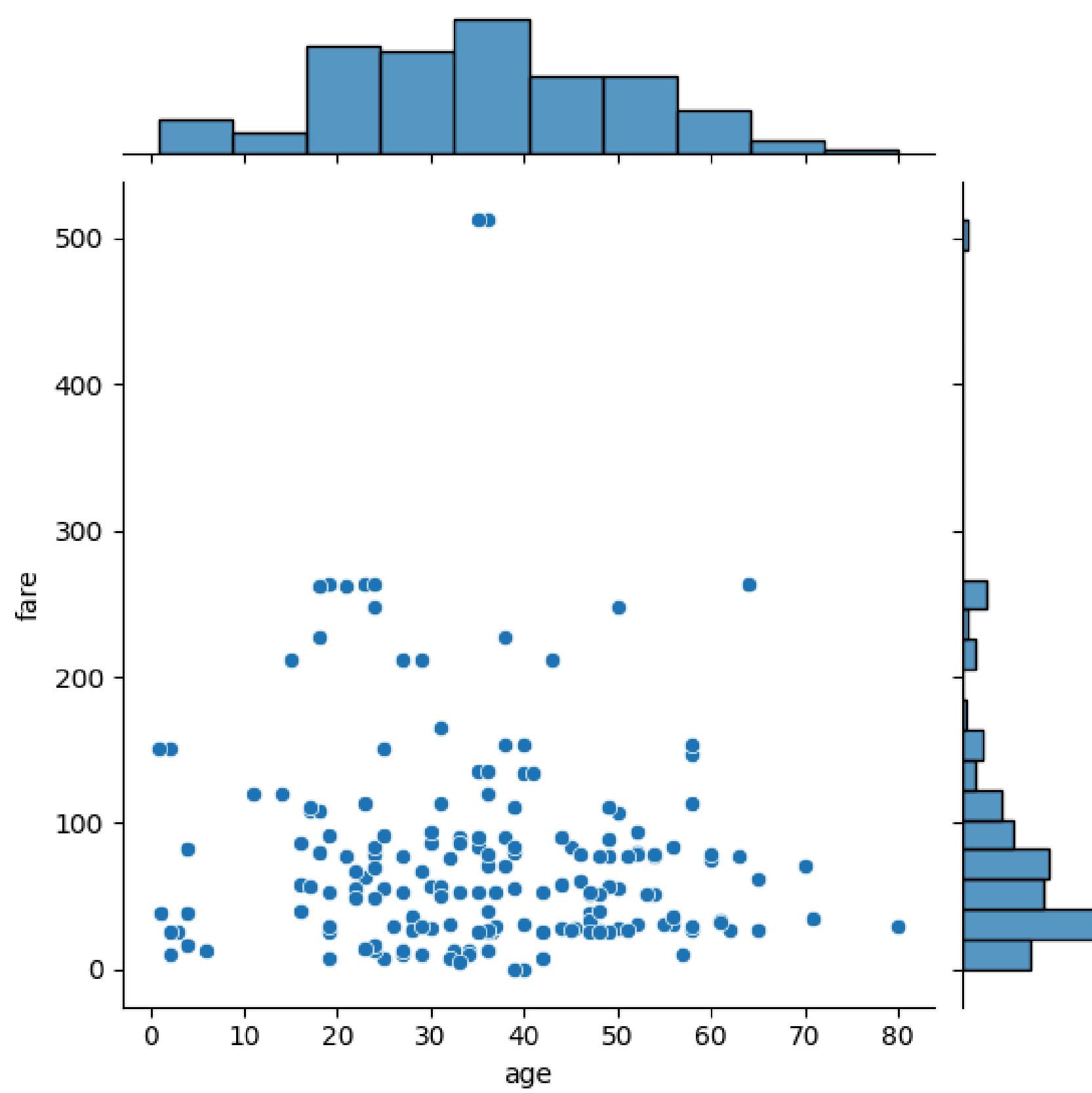
Out[5]:

```
survived      0
pclass        0
sex           0
age          177
sibsp         0
parch         0
fare          0
embarked      2
class         0
who           0
adult_male    0
deck         688
embark_town    2
alive         0
alone         0
dtype: int64
```

```
In [6]: dataset = dataset.dropna()
```

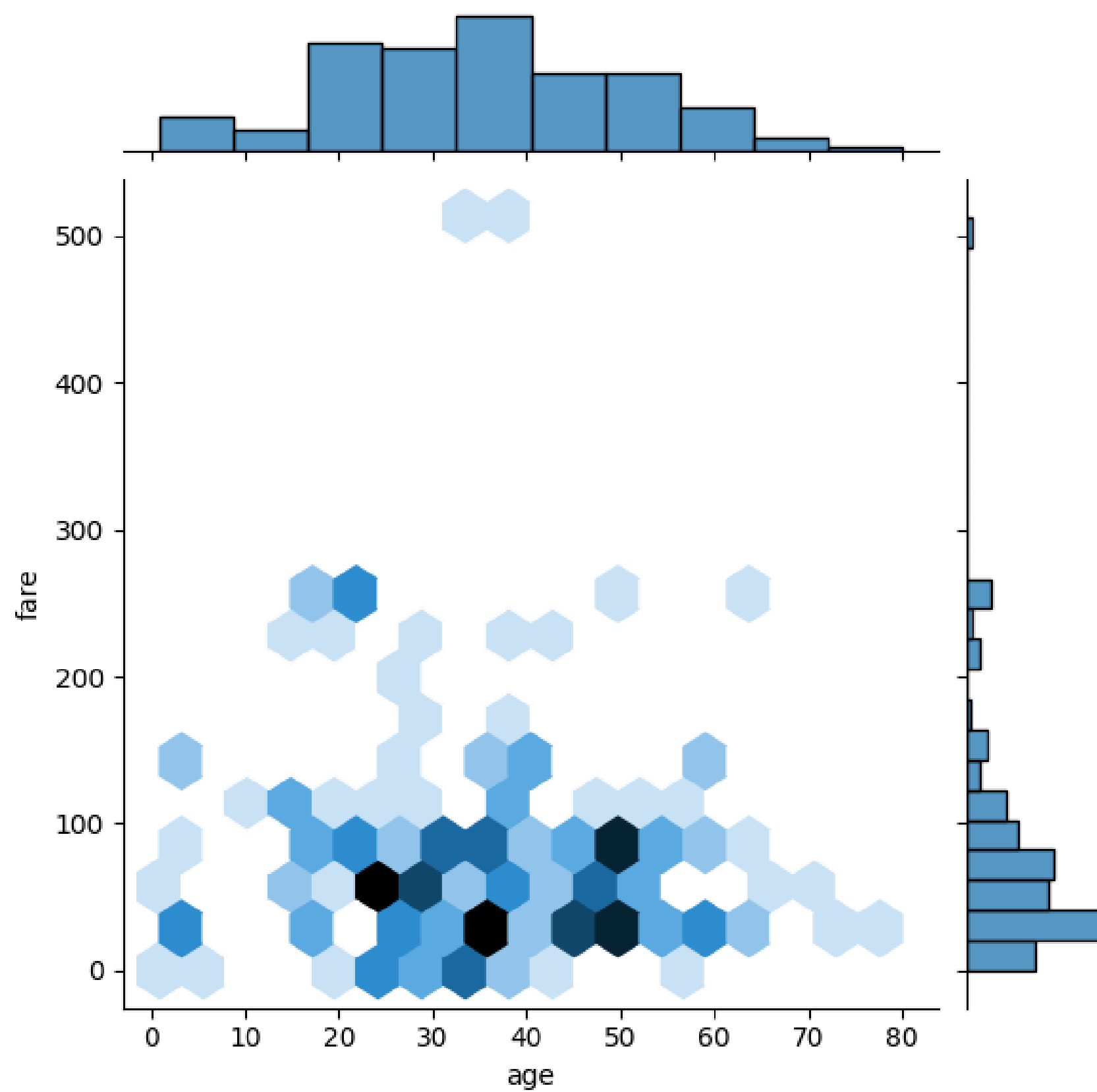
```
In [7]: sns.jointplot(x='age', y='fare', data=dataset)
```

Out[7]: <seaborn.axisgrid.JointGrid at 0x1f79bd2a690>



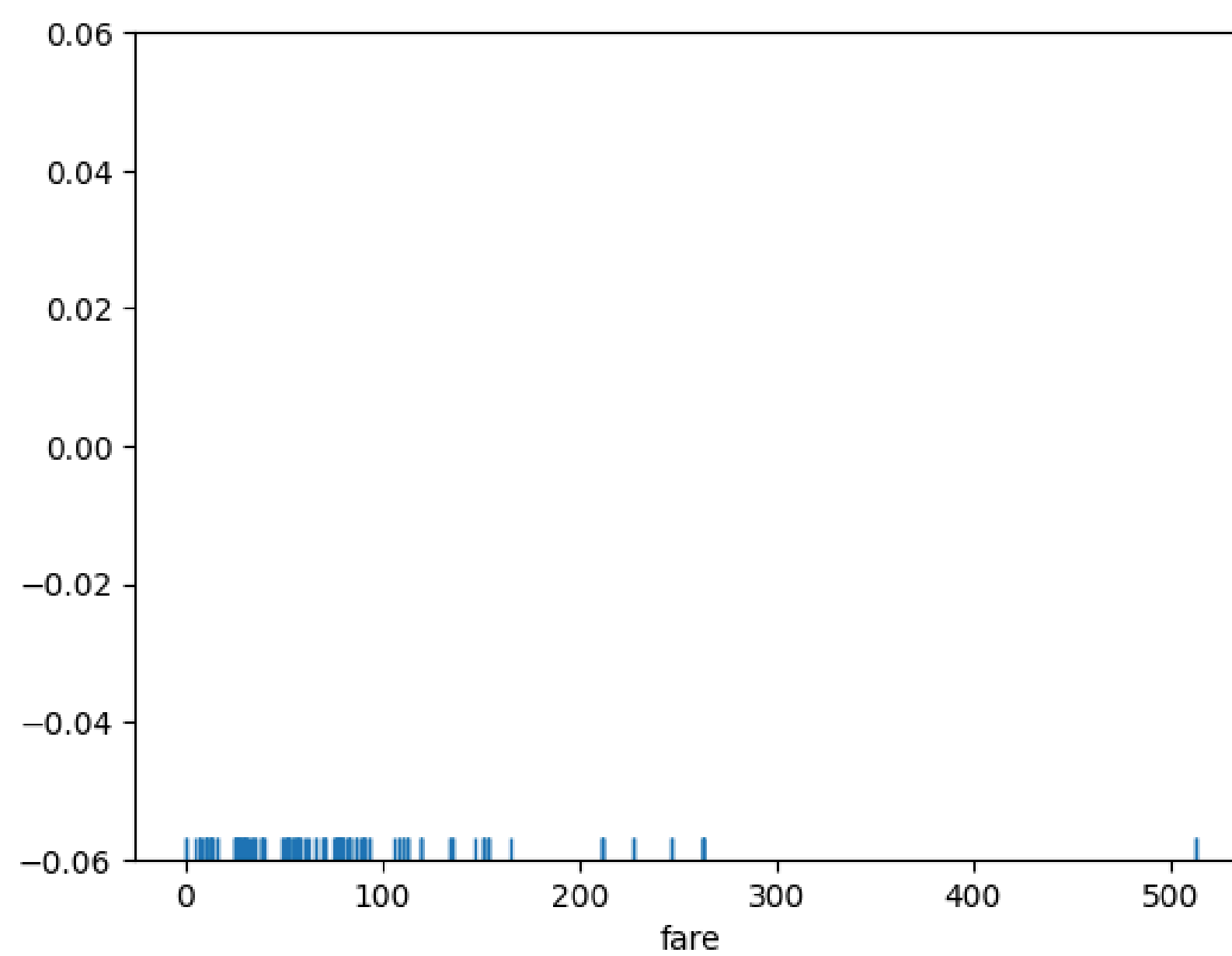
```
In [8]: sns.jointplot(x='age', y='fare', data=dataset, kind='hex')
```

```
Out[8]: <seaborn.axisgrid.JointGrid at 0x1f79a6406e0>
```



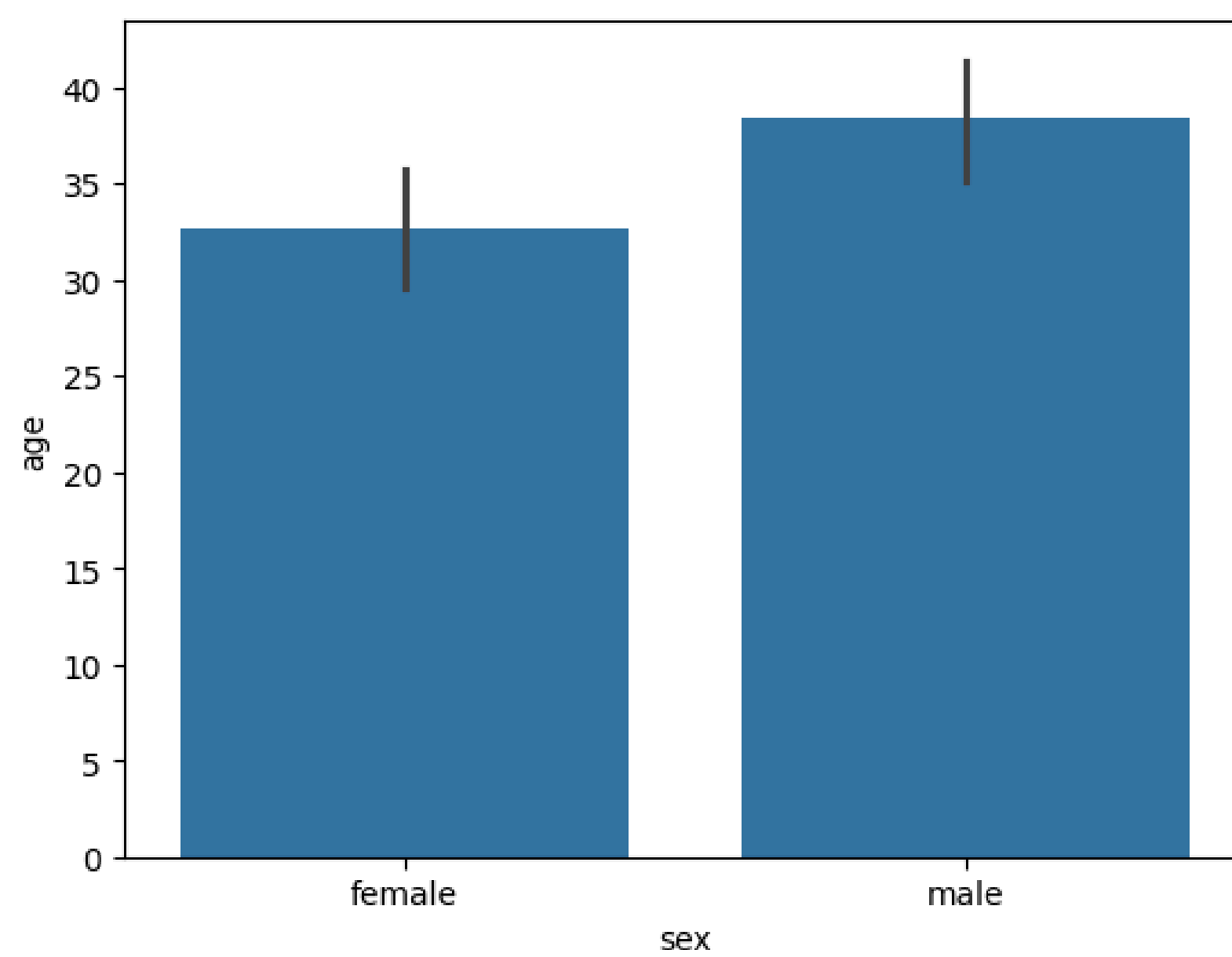
```
In [9]: sns.rugplot(dataset['fare'])
```

```
Out[9]: <Axes: xlabel='fare'>
```



```
In [10]: sns.barplot(x='sex', y='age', data=dataset)
```

```
Out[10]: <Axes: xlabel='sex', ylabel='age'>
```

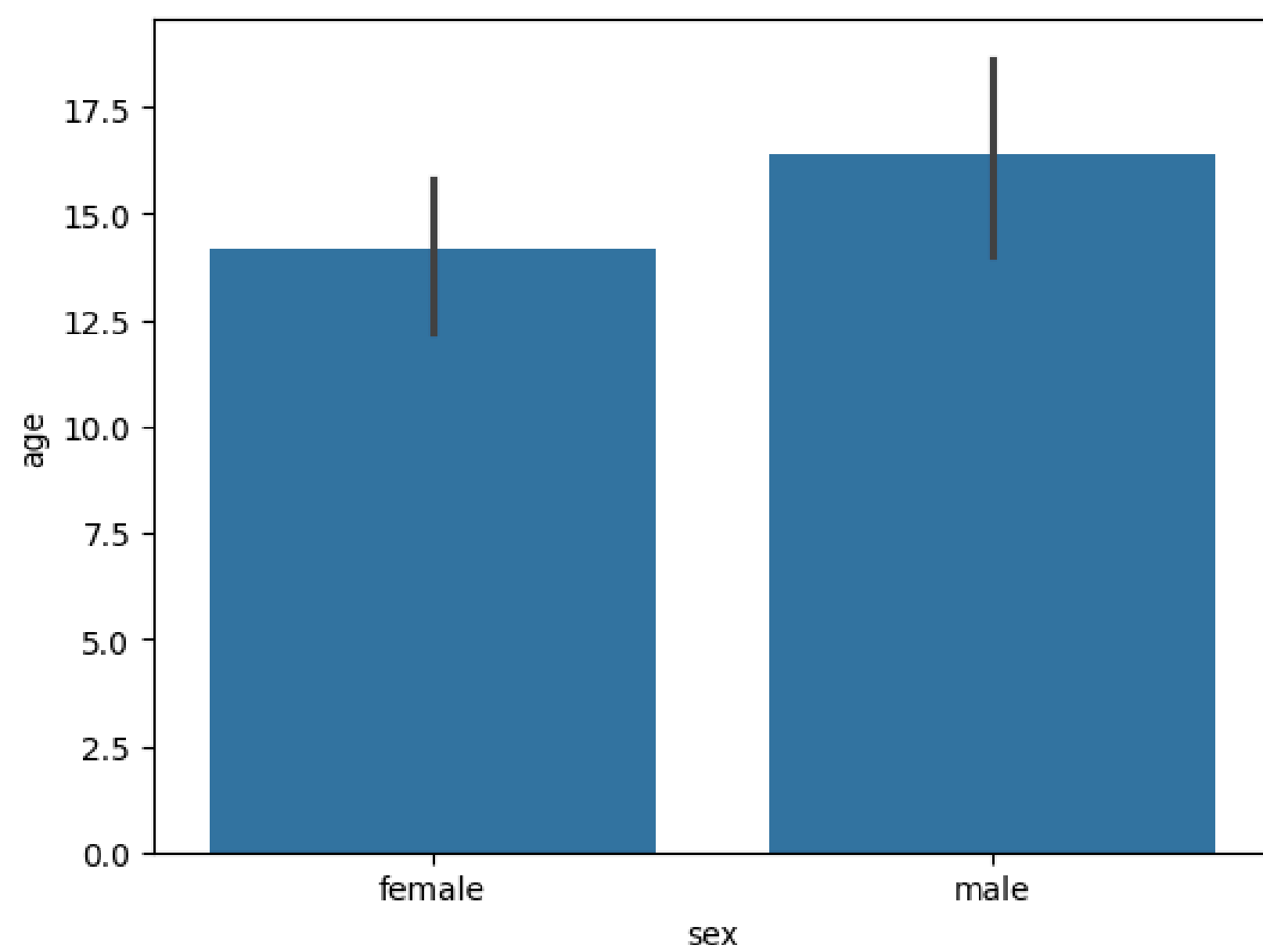


```
In [ ]:
```

```
In [11]: import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns

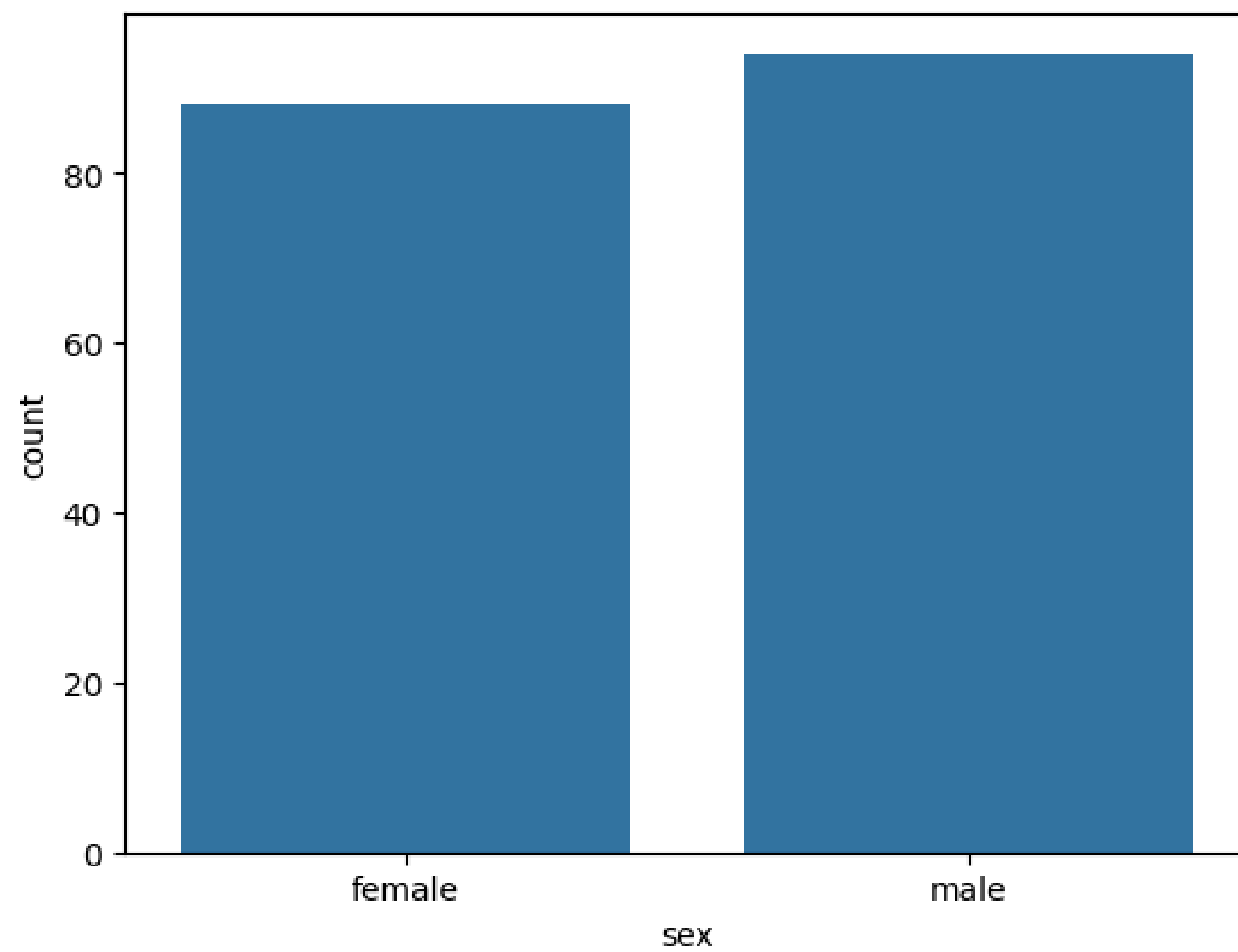
sns.barplot(x='sex', y='age', data=dataset, estimator=np.std)
```

```
Out[11]: <Axes: xlabel='sex', ylabel='age'>
```



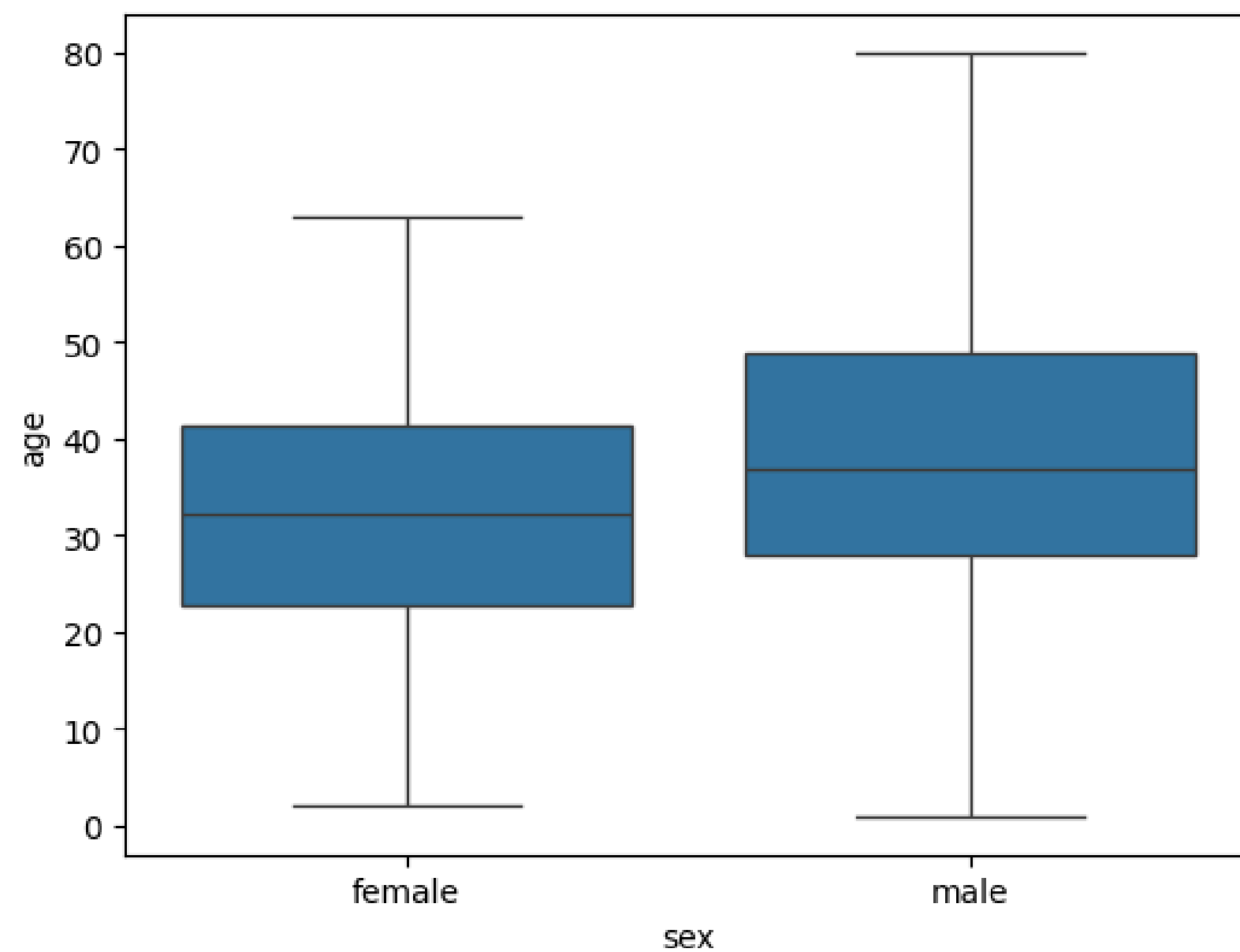
```
In [12]: sns.countplot(x='sex', data=dataset)
```

```
Out[12]: <Axes: xlabel='sex', ylabel='count'>
```



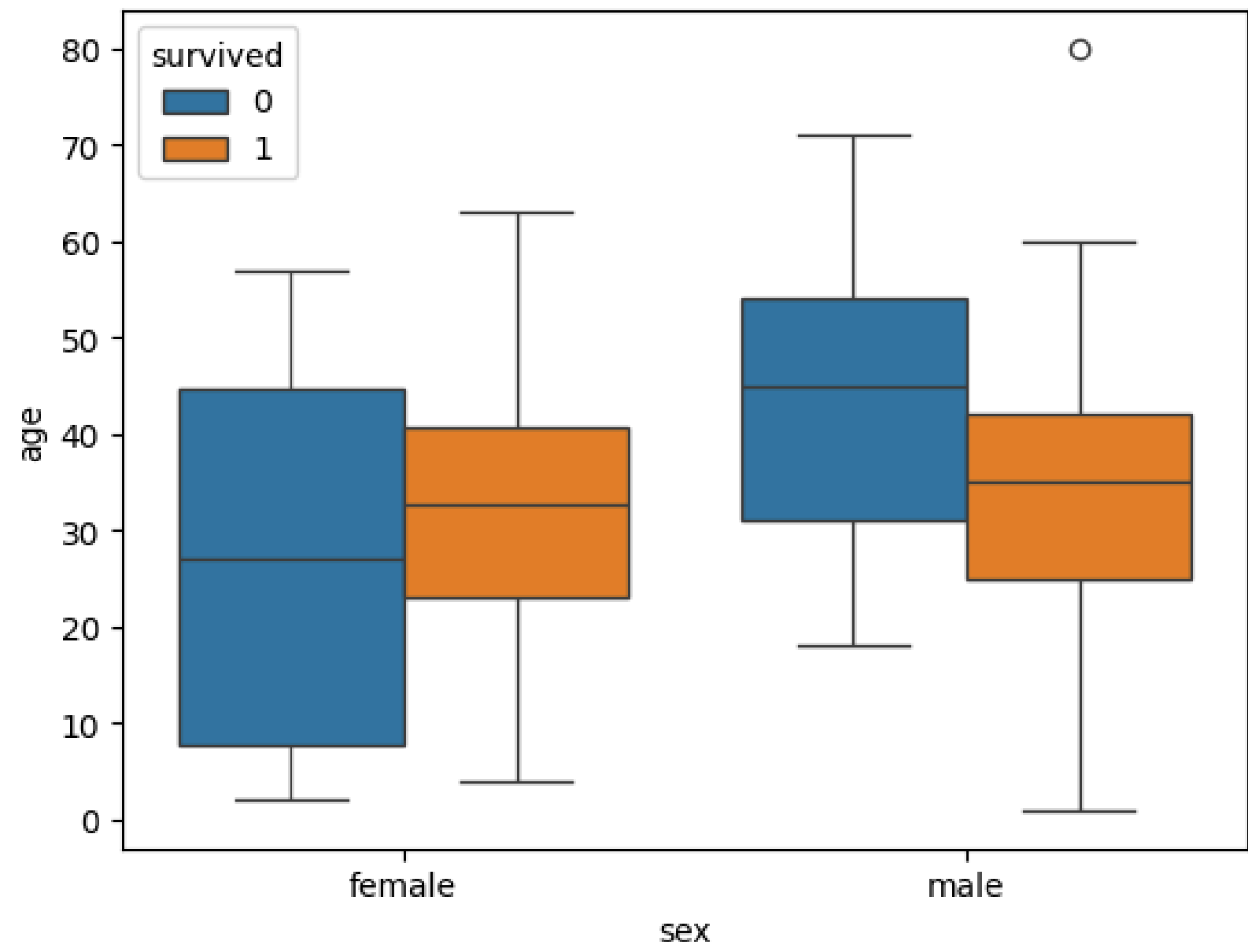
```
In [13]: sns.boxplot(x='sex', y='age', data=dataset)
```

```
Out[13]: <Axes: xlabel='sex', ylabel='age'>
```



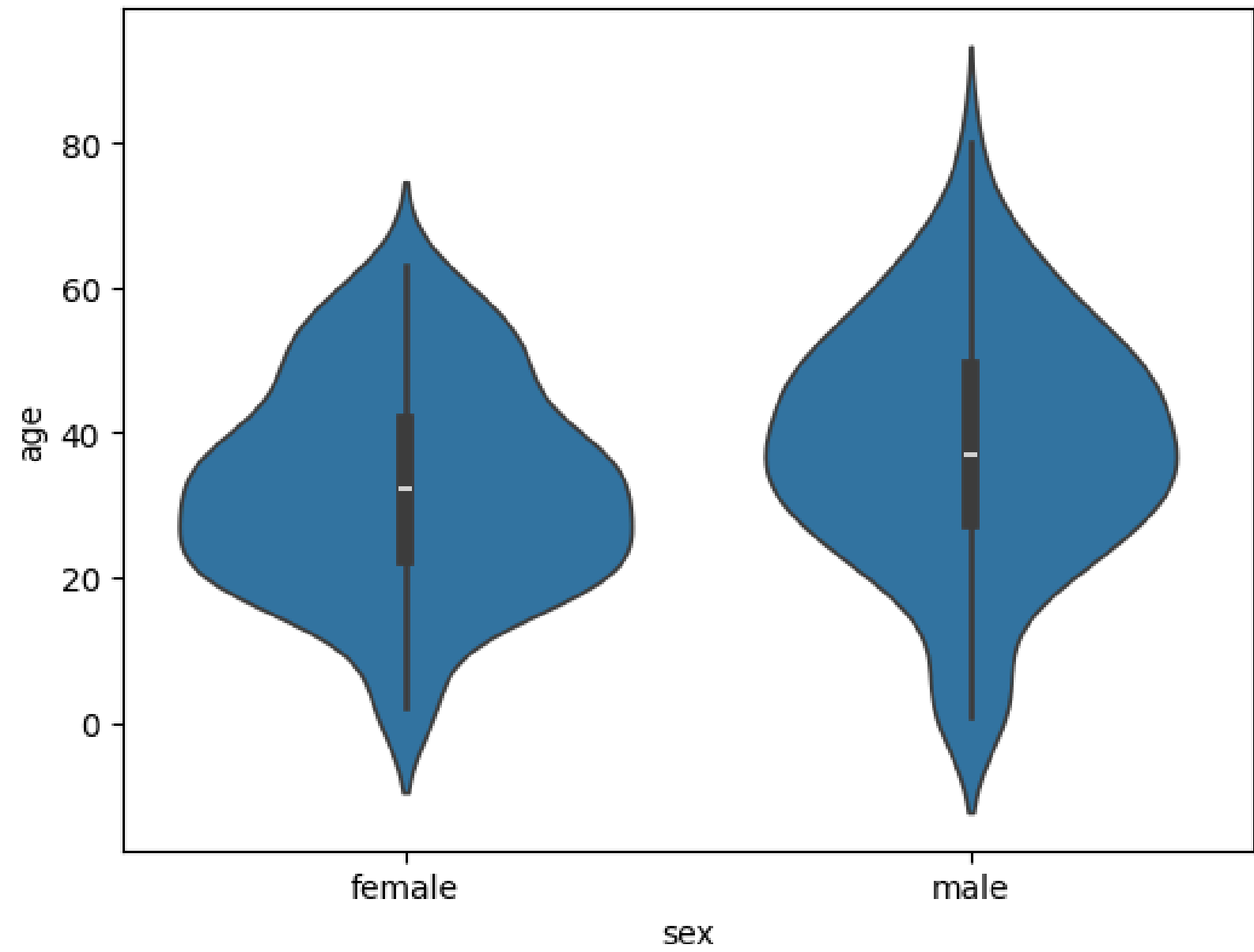
```
In [14]: sns.boxplot(x='sex', y='age', data=dataset, hue="survived")
```

Out[14]: <Axes: xlabel='sex', ylabel='age'>



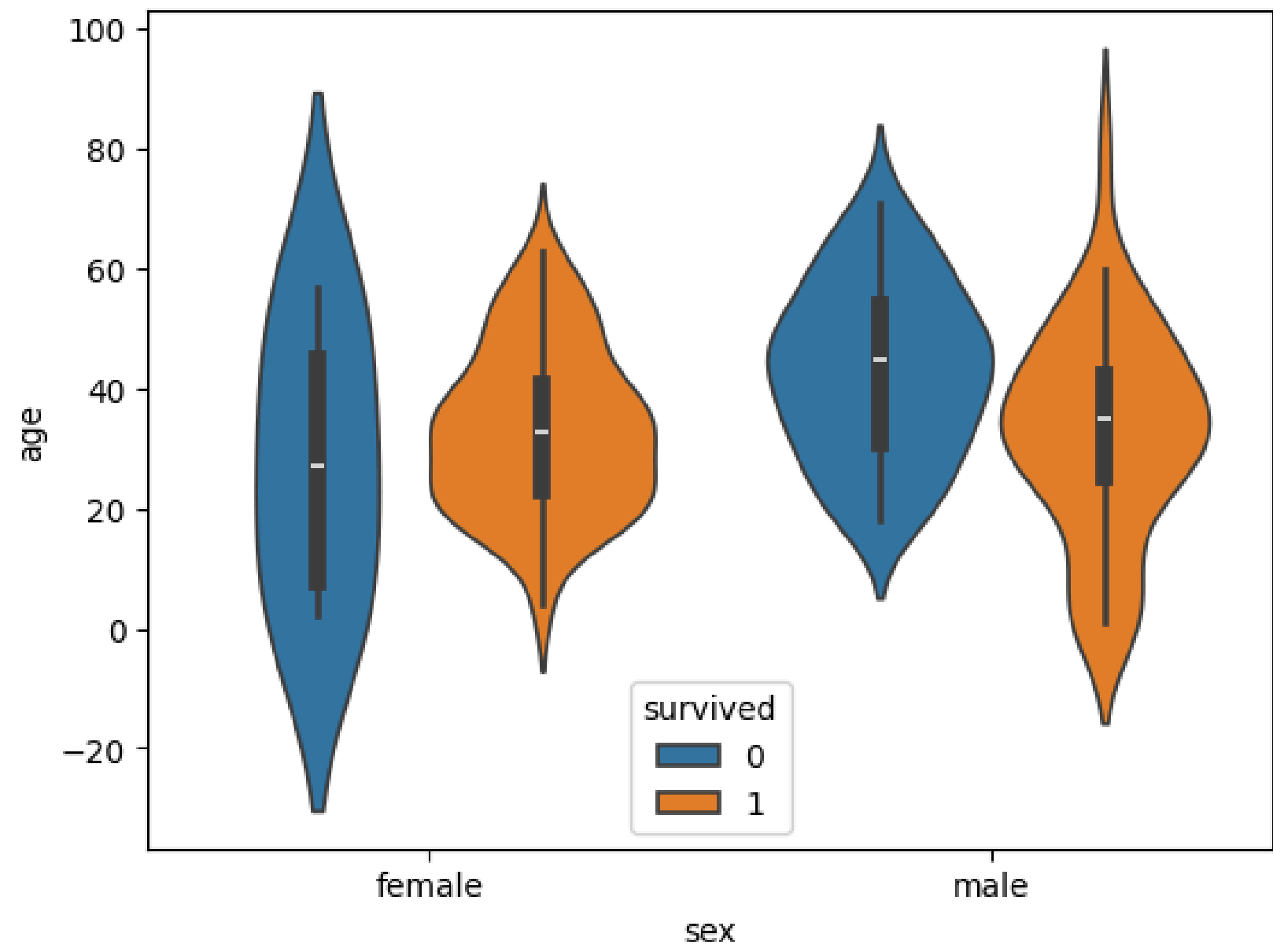
In [15]: `sns.violinplot(x='sex', y='age', data=dataset)`

Out[15]: <Axes: xlabel='sex', ylabel='age'>



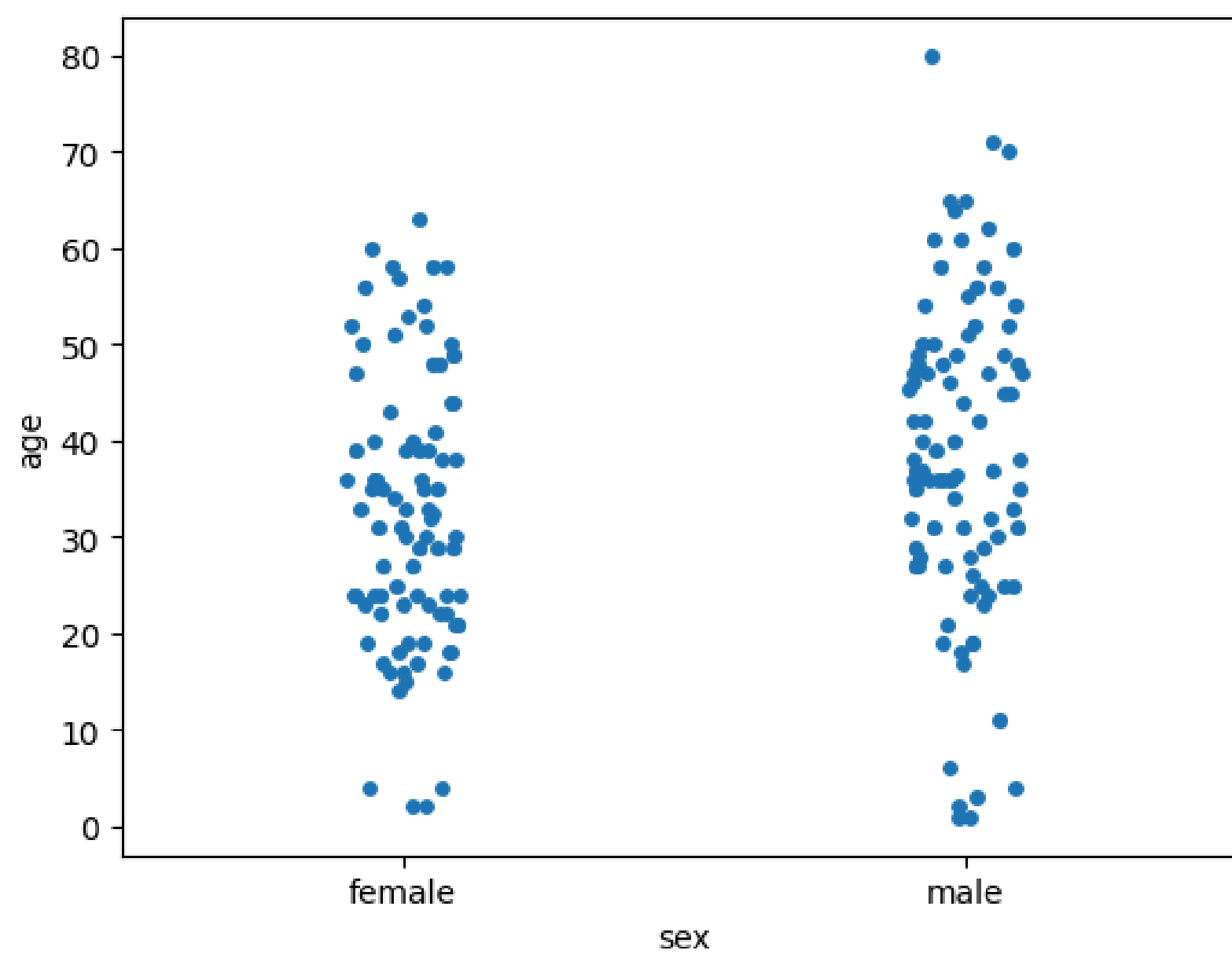
In [16]: `sns.violinplot(x='sex', y='age', data=dataset, hue='survived')`

Out[16]: <Axes: xlabel='sex', ylabel='age'>



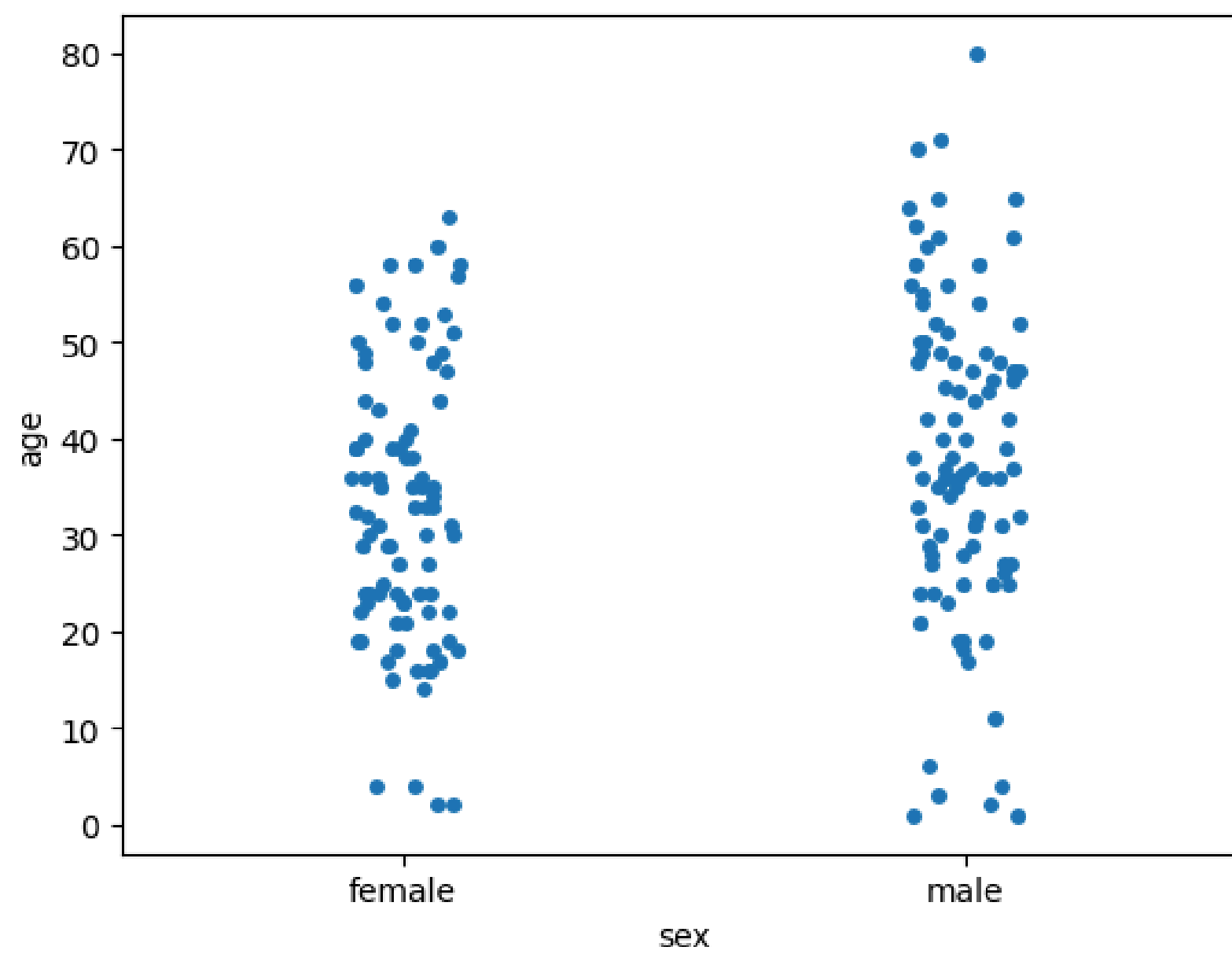
```
In [17]: sns.stripplot(x='sex', y='age', data=dataset)
```

```
Out[17]: <Axes: xlabel='sex', ylabel='age'>
```



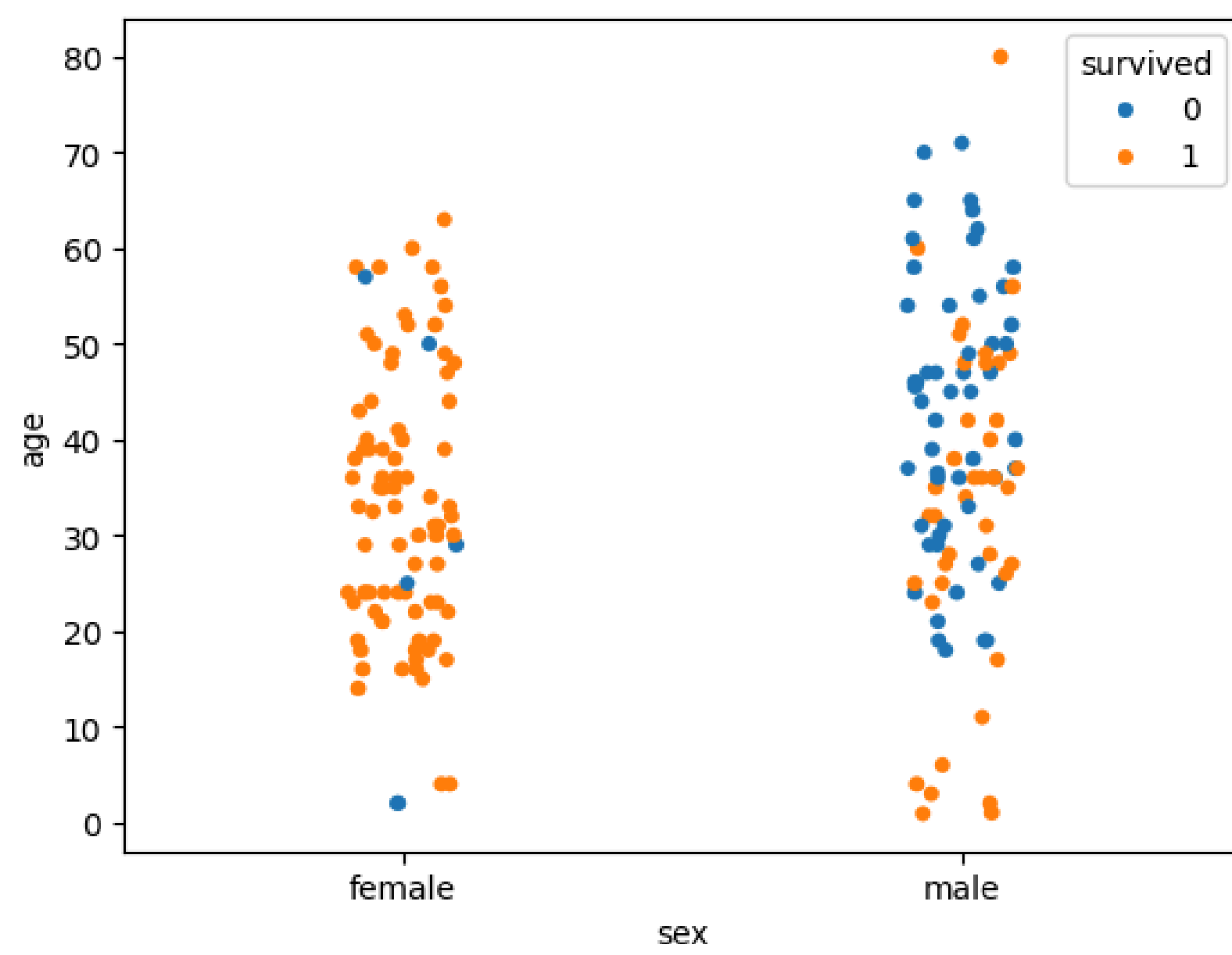
```
In [18]: sns.stripplot(x='sex', y='age', data=dataset, jitter=True)
```

```
Out[18]: <Axes: xlabel='sex', ylabel='age'>
```



```
In [19]: sns.stripplot(x='sex', y='age', data=dataset, jitter=True, hue='survived')
```

```
Out[19]: <Axes: xlabel='sex', ylabel='age'>
```



In [ ]: